

HARD TRUTHS ABOUT LOCAL FOOD

Brussels sprouts: a vegetable crop competing in a global marketplace



Only a handful of growers specialize in Brussels sprouts. Near Pain Court, Ontario, Dave VanSegbrook (L) and Jean Marie Laprise are the largest Brussels sprout producers in Canada. The plumpest sprouts go to the fresh market -- Ippolito Produce in Burlington -- and the remainder is destined for the Bonduelle processing plant in Tecumseh. However, storm clouds are on the horizon to keep competitive in a global market while operating in Ontario's unfriendly business environment. Photos by Rosemary Chaput.

KAREN DAVIDSON

Brussels sprouts, common fare for holiday dinners, are uncommonly difficult to grow. That's why Dave VanSegbrook and partner Jean Marie Laprise have combined their resources to grow the specialty *Brassica* crop.

"Brussels sprouts are a very labour-intensive crop," explains Laprise, during a field tour near Pain Court, Ontario. "The crop is planted May 1 and doesn't get harvested until late October and November, so that's six months of scouting for disease, insects and fertility requirements.

The cold-season crop is

vulnerable to disease such as *Alternaria* and to insects such as aphids, diamondback moth, cabbage loopers and imported cabbage worm. The cruciferous vegetable is also vulnerable to other lower-cost, temperate-climate jurisdictions in California, the Netherlands and Belgium where harvesting can take place over months rather than the nine-week period in Ontario. The partners invested in another state-of-the-art harvester this year, but as the behemoth rolls efficiently through the crop, remember that the iron is unproductive in storage for 10 months of the year.

Altogether, 115 staff are needed from the field to

packing line to clean, sort and pack for two end users: the fresh market at Ippolito Produce in Burlington and freezer processor Bonduelle in Tecumseh. Not every Brussels sprout is destined for prime time, nestled beside the festive turkey. Take a closer look at the buds which form between the stems of the stalk. The growth habit of the plant is such that only 20 per cent of the sprouts meet the 1 1/8 inch to 1 3/8 inch size requirements of the fresh market. The marble-sized remainders must find a home in the processing sector.

As Laprise inspects the end-of-season packing line, searching for efficiency improvements, he points out

that several million dollars have been invested over the years to keep competitive. The business has significant risk with very limited market opportunities. The crop contract is not negotiated under the umbrella of the Ontario Processing Vegetable Growers but directly with buyers. Brussels sprouts are not carrots, potatoes or broccoli where there is higher consumer demand and volumes.

"Our capital costs per unit are much higher than competitors," says Laprise. "The increase in Ontario's minimum wage (\$14/hour as of January 1) is going to affect our competitiveness and I don't think we will be able to recapture the money from the

marketplace. We have driven costs out of our system for the last 25 years, and now I don't know where to turn. Extra labour costs will negatively impact our profit margins."

As much as the newspaper headlines have focussed on minimum wage increases, Laprise is more worried about the Pest Management Regulatory Agency (PMRA) and its re-evaluation of critical crop protection products such as Bravo, Admire and others affecting production of Brussels sprouts and other vegetable crops.

Continued on page 3

AT PRESS TIME...

Major spike in cost of doing business



After months of intense lobbying, Ontario’s agriculture industry learned that not much will budge in Bill 148: Fair Workplaces, Better Jobs Act. On November 15, Charles Sousa, Ontario’s minister of finance, issued a fall economic statement that committed to a minimum wage increase from \$11.60/hour to \$14/hour on January 1.

This unprecedented increase is expected to cost Ontario horticulture an extra \$165 million next year, says broccoli grower Ken Forth, chair of the Labour Issues Coordinating Committee (LICC). If all Ontario agriculture is included, then the dent is \$297 million. With these added burdens, growers will be looking to the marketplace to help absorb these extra costs.

In its economic forecast, the government did acknowledge the vulnerability of the edible horticulture sector by earmarking \$60 million for a competitiveness fund over two years, citing the sector’s unique position as a price-taker in the global market. “The \$60 million will be

helpful to growers in helping them compete in a changing business climate,” says Jan

VanderHout, chair of the Ontario Fruit and Vegetable Growers’ Association (OFVGA). “The new reality is cap and trade, rising energy costs and minimum wage increases.”

Those growers who are most affected by these rising costs are those who are heavy users of electricity, natural gas and labour. As Ken Forth points out, \$400 million of Ontario investment has already left the province to build state-of-the-art greenhouses in the more business-friendly U.S.

As growers measure harvest results and look towards the 2018 planning cycle, OFVGA leaders will be meeting with Ontario ministry of agriculture officials the week of November 20 to discuss how the funds will be managed and distributed. It’s expected the funding mechanism will hinge on Allowable Net Sales as part of a Self-Directed Risk Management-like program. It could be spring 2018 before funds are available.

Just as important are other important labour issues contained within Bill 148. They concern

scheduling, overtime pay and hours worked. “All agricultural exemptions need to be maintained,” says VanderHout. “We need all hands on deck when it’s time to plant, time to harvest. We can’t forecast a heat wave that causes a surge of production. We can’t schedule in advance.”

In the lobbying efforts in recent months, the OFVGA and LICC have been drilling down into these related issues. “Our industry is at the tipping point and only time will tell how fast our industry can restructure,” says Forth.

The cumulative effects of legislative changes are wearing heavily on growers.

“In the next six months as we head into the June 2018 Ontario election, we will have a non-partisan approach, making sure that all provincial parties are aware of agriculture’s role in the economy and the factors impacting our success,” says VanderHout.

Strike at Ippolito ends

About 20 workers at Ippolito Produce picketed the Ontario Food Terminal in mid-November, disrupting business for a week, in their bid for better wages and job security.

“Ippolito Produce and the Teamsters union representing our employees were able to reach a tentative agreement on November 17,” reported Dave Shepherd, director human resources for Ippolito Produce.

NEWSMAKERS

SunSelect Produce, Inc. has named **Len Krahn** to its top leadership role of chief executive officer. He will manage 70 greenhouse acres in Delta and Aldergrove, British Columbia and 64 acres in Tehachapi, California. Krahn has held various positions at SunSelect since 1993. In 2014, SunSelect’s Canadian greenhouses became the first produce-growing operation in North America to earn Fair Trade certification. He is one of four siblings who manage the pepper, tomato and cucumber greenhouse company.



Len Krahn

The BC Blueberry Council has announced that **Anju Gill** is the new executive director. Her 12 years of experience in government and public relations along with her education uniquely position her in supporting the diverse needs of the highbush blueberry industry. Based in Abbotsford, BC, she will be managing an association with 700 members.



Anju Gill

The Dow-DuPont merger is resulting in divestitures and moves of personnel. **Sylvain Legault**, for example, has been with DuPont for 15 years, but announced his move to FMC Agricultural Solutions as sales representative, Eastern Canada.

The Ontario Greenhouse Vegetable Growers held their annual general meeting October 24. **Kevin Safrance** and **Hilco Tamminga** were elected for a second term. **Bill Heeg**, **Marco Hoogenboom** and **James Neven** acclaimed their seats. The 2017-2018 board of directors for district 1 are: **Paul Mastronardi**, Hazel Farms; **Jason Whitcher**, Cecelia Acres; **Peter Quiring**, NatureFresh Farms; **Kevin Safrance**, EnviroFresh Farms; **Hilco Tamminga**, Truly Green. Directors for district 2 are: **Jan VanderHout**, Beverly Greenhouses; **Mike Vanderzwet**, St. David’s Hydroponics; **Bill Heeg**, Sunchoice Greenhouses; **Marco Hoogenboom**, Hoogenboom Family Farms; **James Neven**, Foothill Greenhouses. The recipient of The Industry Builder Award was **Don Taylor**, chair of the board from 2010 to 2015.



Don Taylor

At the recent Royal Agricultural Winter Fair, the National Apple Competition attracted just under 100 entries from British Columbia, Ontario and Quebec. The Canadian Horticultural Council Trophy for Grand Champion of new varieties was won by **Steve Brown**, Happy Valley Harvest, Summerland, BC for his Ambrosia variety entry. The Ontario Apple Growers Trophy was awarded to **Wheelbarrow Orchards**, Milton, Ontario as premier exhibitor of commercial varieties. The Tyrell Trophy also went to **Wheelbarrow Orchards** as winner of the best collection of apples. For all winners, go to: <https://assistexpo.ca/results/2017-rawf/6/820>

Also at the Royal, the Giant Vegetable Competition always attracts the curious. This year’s winner for the Potato by Weight category was a 4.4 pound entry by **Pat Tupling** from Tupling Farms, Melancthon, Ontario. For those interested, the variety is Colomba.



Fore more Newsmakers, see page 8.

High-Density Orchards Require Intensive Vole Management with

GROUND FORCE

COMMERCIAL PRODUCT

- Labeled for two (2) treatments: Additional protection for High-Density production
- Rozol paraffinized pellets are ideal for wet conditions
- Perfect for use during snow melt-offs

Voiles gnaw on tree trunks and roots (girdling) causing disruption of the tree's flow of nutrients and water.

PROTECT VALUABLE ROOTSTOCK AND IRRIGATION SYSTEMS

Learn More

Ground Force (PCP #20239) features the same active ingredient as Rozol Vole Bait, trusted for decades in the U.S.

Meadow vole.

Distributed in Canada by: 905.563.8261 www.bartlett.ca

N.M. BARTLETT INC.

Manufactured by: LIPHA-TECH 888-331-7900 • www.liphattech.com

Outstanding Control

COVER STORY

Brussels sprouts: a vegetable competing in a global marketplace

“

The increase in Ontario’s minimum wage (\$14/hour as of January 1) is going to affect our competitiveness and I don’t think we will be able to recapture the money from the marketplace.

”

~ JEAN MARIE LAPRISE

Continued from page 1

“We are extremely concerned that we will lose access to important pesticides for disease and insect control,” says Laprise. “It’s crucial for us to produce quality product for the market, otherwise our customers will buy from the U.S. and Europe. The PMRA is now at a point where it will sell out Canadian agriculture if it’s not careful and Canadian consumers will be getting its produce from China, Mexico and the U.S. where they can use the same pesticides that we may not. Quite seriously, PMRA could kill the vegetable industry.”

Dave VanSegbrook brings perspective from a recently completed trip to the Netherlands. “Admire (imidacloprid) was removed from registered usage three years ago in the Netherlands. Since the loss, growers have witnessed reduced quality from increased and uncontrolled insect pressure. This has led to higher costs and more discards from the packing shed. A neighbouring country still has registration of imidacloprid, not having to bear the increased costs and reduction in revenue that the growers in the Netherlands now suffer.”

The law of unintended consequences is at play. One of the key themes in the produce industry is how to reduce food waste. By banning specific crop protection products, regulators may not have realized the consequence of increased waste in the field and on the packing line as growers try to meet customer demands for quality produce. This is more evidence of the complexity of growing specialty crops.

Specialists in a specialty commodity

Ippolito Inc has been marketing Brussels sprouts since the 1970s, a track record that makes the firm a specialist in a specialty commodity. In fact, the company is one of the major suppliers to North America.

“Canadians at that time consumed more Brussels sprouts than our neighbours to the south,” recalls Steve Dimen, co-chief operating officer, Ippolito Inc., Burlington, Ontario. “In order to create a 12-month program for Canada, Joel Ippolito travelled to the Baja peninsula of Mexico in 2001 when he started test plots. The success of this program has positioned us well for the healthy eating trend in the last 15 years.”

With growth in the retail market, the company has spent time and dollars on research and development for value-added sprouts. The result is a microwaveable bag for whole and half sprouts in addition to a line of shredded sprouts. All of these items are washed and dried prior to packaging.

“Laprise Farms represent a very important piece of our local Brussels sprouts program,” says Dimen. “They have been growing partners with the Ippolito’s for more than 25 years. Unfortunately, the local season only lasts a couple months every year. To ensure we have a good supply for 12 months, we diversify our program throughout the southwestern United States and Mexico.”



Trucks haul tons at a time to the nearby packing line for washing, sorting and packing.



Altogether, 115 staff are required for the Brussels sprouts operation from field to packing line. The operation is CanadaGAP-certified.



Dave VanSegbrook (L) Derek Louzon and Jean Marie Laprise are proud of their fresh product destined for Ippolito Produce in Burlington, Ontario.



NOTICE OF MEETING

is hereby given that the 159th Annual Members and Directors' Meeting of the

ONTARIO FRUIT AND VEGETABLE GROWERS' ASSOCIATION

will be held at the **HILTON HOTELS & SUITES NIAGARA FALLS/FALLSVIEW**

6361 Fallsview Boulevard | Niagara Falls ON L2G 3V9

February 20, 2018

Election of Directors of the Association will take place as well as dealing with resolutions and any other business that may arise.

CROSS COUNTRY DIGEST

NOVA SCOTIA

Scotian Gold Cooperative installs high-efficiency apple production lines

Celebrating its 60th year, Scotian Gold Cooperative Ltd. has invested \$5.5 million in two high-efficiency production lines for its Coldbrook, Nova Scotia facility. If there are no traffic jams, each line can process about 30 bins an hour.

The federal government made a \$1.75 million repayable loan through the Growing Forward 2, AgriInnovation Program. The expansion has the potential to double packaging capacity over the next decade.

The optimism is based on the doubling of Nova Scotia apple exports since 2014. Provincial statistics show that exports, mostly to the U.S.,

have grown from 1.8 million kg to almost 4.0 million kg in 2016. The value has also doubled to \$15 million. The top three varieties now are Honeycrisp (325,000 bushels), Cortland (260,000 bushels) and McIntosh (200,000) bushels.

Honeycrisp is a finicky variety to grow, harvest and store. For example, each apple needs to be stem-clipped to prevent a puncture in the skin.

"The new facility is an example of Scotian Gold's willingness to invest in the future of our growers, our employees and the apple industry," says David Parrish, president and CEO, Scotian

Gold Cooperative Ltd. "Over the next number of years, the apple volume will increase for varieties such as Honeycrisp, Ambrosia and SweetTango. This facility will have the capability to supply expanding markets in a timely and efficient manner."

There are 33 producers who own the tree fruit cooperative which is the largest apple packing and storage operation in Eastern Canada.

Source: Agriculture and Agri-Food Canada October 27, 2017 news release, files from Halifax Chronicle-Herald.



SweetTango is one of the varieties grown at Lutz Family Farms, Rockland, Nova Scotia.

PRINCE EDWARD ISLAND

PEI Potato Board takes to the airwaves

For the first time, the Prince Edward Island Potato Board has filmed and produced a 30-second TV ad that's set to air in Ontario and all Atlantic provinces. It will air primarily in local markets on Hockey Night in Canada and other digital channels.

"We wanted to connect with people not connected with farming and show the passion for what we do," says Kendra Mills, marketing director, PEI Potato Board. "This ad showcases real farmers and real

potato farms."

Although the \$1 billion industry is central to PEI's economy, the TV ad is considered an important outreach to those in the region. The launch timing coincides with the end of the 2017 harvest and the start of the main shipping season. The media schedule will take the ad into mid-December.

What does it take to grow a quality potato? It takes an island.

The catchy introduction was

written by Furrow Creative, based in Charlottetown. The project was filmed over the summer and early fall of 2017 at different field locations all over the island.

"We have so much to be proud of and thankful for in our potato industry here on PEI," says Rodney Dingwell, chair of the PEI Potato Board. "It's the backbone of our economy, it's a major part of our culture and PEI wouldn't be the same without it."

The province of PEI



provided some funding for the project. To see the ad, go here: www.youtube.com/watch?v=nnLHJ5MwER8

QUEBEC

Metro expands click-and-collect service

Metro, considered the third largest grocer in Canada after Loblaw and Sobeys, is expanding its footprint in the online marketplace. The grocer says 60 per cent of Quebec's 8.2 million population will have access to the delivery service by the end of 2017.

Metro.ca is now serving Quebec City, enabling shoppers to place an order for pick-up at the Metro Plus St-David (Beauport) location or opt for home delivery within the service area, from Lévis to L'Ancienne-Lorette, and from Quebec City to Saint-Augustin-Desmaures.

The company first gained success in the Greater Montreal Area, offering between 20,000 and 25,000 SKUs. If orders are

placed by midnight, customers can receive next-day delivery for a fee that ranges from \$4 to \$8 depending on the day and time.

In-store staff has been trained to select the freshest in-store products and to keep them in-store in a dedicated tri-zones area -- temperate, refrigerated and frozen -- until they are collected or delivered. The delivery trucks have been outfitted with the same zones. The infrastructure is designed to uphold Metro's guaranteed freshness promise.

Metro started testing online grocery delivery in Montreal, Quebec, in late 2016. While plans are underway to expand to Ontario, no launch date has been announced.

THINKING OF SEED
THINKING OF SEMINOVA

Our strength relies on
our professionalism,
our field expertise
and our dedicated
engaged employees.

1-877-337-8423
www.seminova.ca
20 rue de l'Industrie, C.P. 3640, Saint-Rémi, QC, J0L 2L0

Alloy Thompson, M. Sc. CAA, Ontario Sales Representative, Tel: 705-434-7292

CROSS COUNTRY DIGEST

MANITOBA

Exempting farmers, Manitoba takes middle road on carbon tax

Manitoba’s premier Brian Pallister has announced a fixed carbon price of \$25 per tonne while exempting farmers from a fuel tax. The price is more than the federal government’s demand of \$10 per tonne by 2018 but less than the staged plan to reach \$50 per tonne by 2022. The tax means another five cents a litre on the price of gasoline.

“We’re quite pleased that the premier has taken the time to consult with growers,” says Dan Sawatsky, general manager, Keystone Potato Producers’ Association. “We understand that climate change needs to be addressed. The government has found ways to address the issue limiting economic harm.”

That’s good news for Manitoba’s potato growers who just had their “best year ever” according to Sawatsky. On average, growers harvested 359 cwt/acre on 613,915 seeded acres. That’s up considerably from 348 cwt/acre last year. The ability to irrigate, in the face of 50 per cent of normal rainfall, partially contributed to the banner year.

Manitoba is unique in that the province must plan for both drought and floods. Its experience and perspective are useful to all Canadians. In a key document called “A Made-in-Manitoba Climate and Green Plan,” the premier acknowledges the importance of agriculture to the provincial economy. When all agriculture, food and beverage processing is accounted for, agriculture accounts for about 12 per cent of the province’s GDP. He cites the fact that farmers are price takers in the domestic and global economies which gives little room to manage rising costs such as fuel.

Accordingly, the Made-in-Manitoba plan includes two important exemptions for farmers and agricultural operations. First, farm operations will be exempt from the application of the carbon levy for fuel use for their farming operations. Marked fuels will not increase due to any carbon pricing being applied on diesel or gasoline at the wholesale, distribution or pump levels. Second, agricultural emissions will not be targeted for direct sector reductions via the carbon price or other aspects of this plan.

While agriculture contributes 32 per cent of Manitoba’s greenhouse emissions, there is recognition for the opportunity to sequester carbon. Many other techniques and programs will be enhanced. For instance, precision farming can improve

What is one tonne of CO₂?

One tonne of CO₂ is emitted every time someone:

- drives 4,500 kilometres
- heats a home for three months

Physically manifested, one tonne of CO₂ emissions would be eight cubic metres in size.

fertilizer efficiency.

The 64-page plan is a thoughtful, in-depth assessment of how to withstand, respond to and recover from impacts of climate change. The Climate

and Green Plan is published for citizen feedback by November 30. For more details, go to: <http://bit.ly/2A6K0U1>

Manitoba to have second-lowest carbon price in Canada

2018	2022	
BC = \$35	\$50	New BC government to raise by \$5/tonne each year
AB = \$30	\$50	Agreed to follow federal plan beginning in 2021
SK = \$10	\$50	Imposed federal backstop presumed
MB = \$25	\$25	Made-in-Manitoba Prairie Price
ON = \$18	\$22 floor price	Cap-and-Trade price forecasted*
QC = \$18	\$22 floor price	Cap-and-Trade price forecasted*
NB = \$10	\$50	Agreed to following federal plan beginning in 2018
NS = Under development		Federal equivalency for NS internal cap-and-trade plan
PEI = \$10	\$50	Agreed to following federal plan beginning in 2018
NL = \$10	\$50	Agreed to following federal plan beginning in 2018

*Ontario Energy Board Long Term Carbon Price Forecast Report (2017)



CANADA'S PREMIER HORTICULTURAL EVENT



2018 ONTARIO
FRUIT & VEGETABLE
CONVENTION

FEBRUARY 21–22, 2018
SCOTIABANK CONVENTION CENTRE
NIAGARA FALLS, ONTARIO



LEARN

120+ EDUCATIONAL SESSIONS

BROWSE

80,000 SQ. FT. OF EXHIBITS

ENJOY

FARMERS & FRIENDS RECEPTION

FEATURING

MEET THE BUYER

WHERE FARMERS MEET KEY INDUSTRY BUYERS 1 ON 1

SAVE

REGISTER ONLINE TODAY FOR EARLY BIRD SAVINGS



FREE PARKING

www.ofvc.ca

   @ofvc1

STUDENT OUTREACH

More than 500 Ontario schools raise funds through Fresh from the Farm



DAN TUKENDORF

The Ontario-based Fresh from the Farm (FFF) school-fundraising program completed its largest and most successful campaign to date at the end of November. 2017 marked the fifth year this healthy alternative to traditional

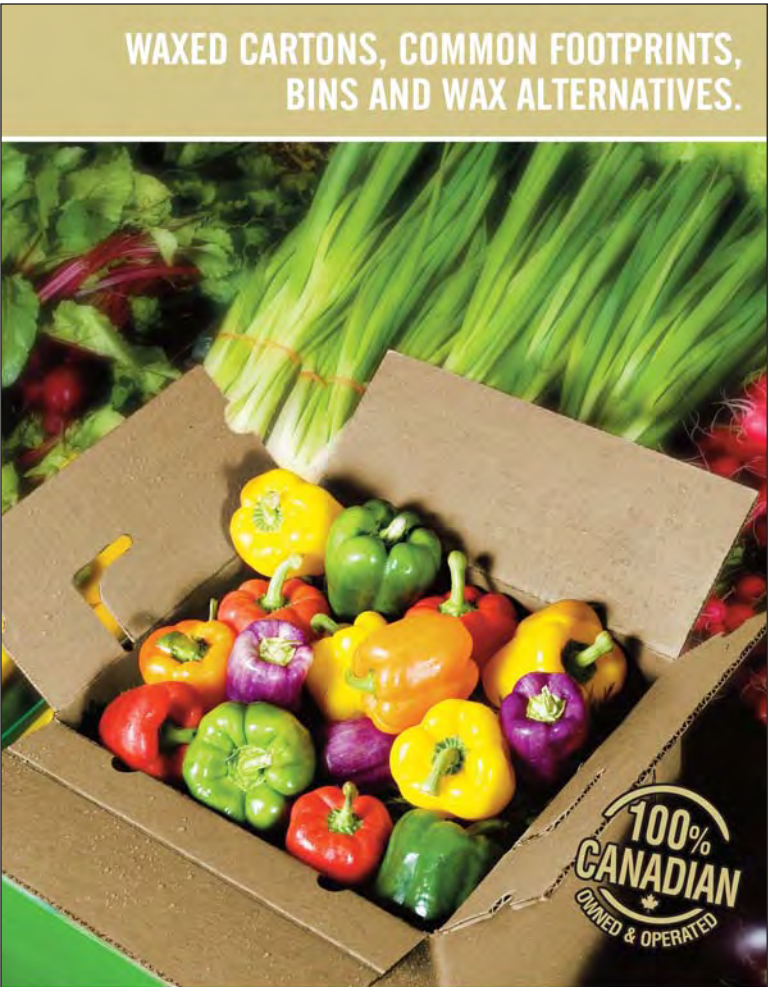
fundraising program was offered to Ontario schools. Eligible Ontario schools sell bundles of fresh Ontario-grown root vegetables and apples with 40 per cent of all sales going back directly to each school. In 2017, nearly 500 schools across Ontario sold more than one million pounds of fresh fruit and vegetables raising more

than \$750,000 for their schools. Not only does the FFF program provide a healthy fundraising alternative for schools but at the same time it increases the school community's awareness and consumption of healthy Ontario fruit and vegetables while supporting local growers. "After five years of



continuous growth, the FFF fundraising program has shown there is demand for a healthy alternative in schools. The FFF not only supports Ontario schools but also supports Ontario's economy by providing Ontario fruit and vegetable farmers with additional markets for their healthy products. The Ontario Fruit and Vegetable

Growers Association looks forward to the continued growth of the program and on behalf of Ontario's fruit and vegetable growers thanks the school communities for supporting local food. *Dan Tukendorf is program manager, Ontario Fruit and Vegetable Growers' Association.*





CASCADES CONTAINERBOARD PACKAGING - ETOBICOKE
For information please call
1-800-654-4650 • 416-255-8541
www.cascades.com



Teaching food skills to students



More than 30 classrooms across Canada hosted "Chef for a Day" on November 21 to encourage healthy eating habits and food skills development. Established by the Canadian Produce Marketing Association (CPMA) as part of their Freggie Children's program, Chef for a Day is a unique educational opportunity where kids learn how to make an easy, healthy lunch from start to finish. They then get to eat their creations, all while learning about how to make the healthiest choices to fuel their growing bodies. "We know that the development of proper food skills is an essential foundation for healthy eating, and that the best way to

learn is with a hands-on experience," says Ron Lemaire, CPMA president. "We're hoping this event can provide awareness at the community level as to the benefits of teaching children to cook and sending them to school with more nutritious lunches." Participating teachers are provided with a step-by-step blueprint for the event, and are encouraged to enlist the help of local chefs, dietitians, or keen parents. Each event focuses on health, food safety and great taste with the intention of including students at every step. Piloted in 2015 in Nova Scotia, the program has been tailored to a national level, and

can be hosted with minimal funds. "It can be extremely challenging for teachers to execute one-off educational programs with limited funding and resources. With the easy to follow blueprints and gift cards to purchase ingredients, CPMA has developed a winning combination to get more kids engaged in healthy eating while respecting busy schedules," added Kim Hickman, Community Dietitian, Health Promotion Unit, Government of Yukon. "This program is a wonderful way to get kids engaged and excited to make healthy meals."

CASE HISTORY

Improving packing line efficiency and...reducing food waste

As part of the Ontario Produce Marketing Association’s (OPMA) food waste reduction initiative, Value Chain Management International (VCMI) worked with Gwillimdale Farms (GF) Bradford, Ontario to implement effective daily management systems for their carrot, beet, parsnip, onion and potato packing lines.

Gwillimdale’s primary operation – established south of Lake Simcoe in the outskirts of the Holland Marsh – includes 1,000 acres of carrots, potatoes, onions, beets and parsnips. GF also recently commenced vegetable production in the New Liskeard area, to meet the exponential increase in demand that has occurred in recent years. This demand culminates from GF’s proven ability to consistently supply high-quality products and meet exacting customer demands on volume and format.

Since the owners, John and Cristina Hambly, first invested in on-site vegetable packing equipment in 2007, GF’s packaging facilities have expanded to three production lines that wash, bag and cut – if required – an average of 250,000 pounds (five tractor trailer loads) of vegetables each day. While most of the vegetables processed are grown on their own farms, GF also purchases Canadian, American and Mexican produce from preferred partners to ensure a constant year-round supply of excellent quality products for their customers.

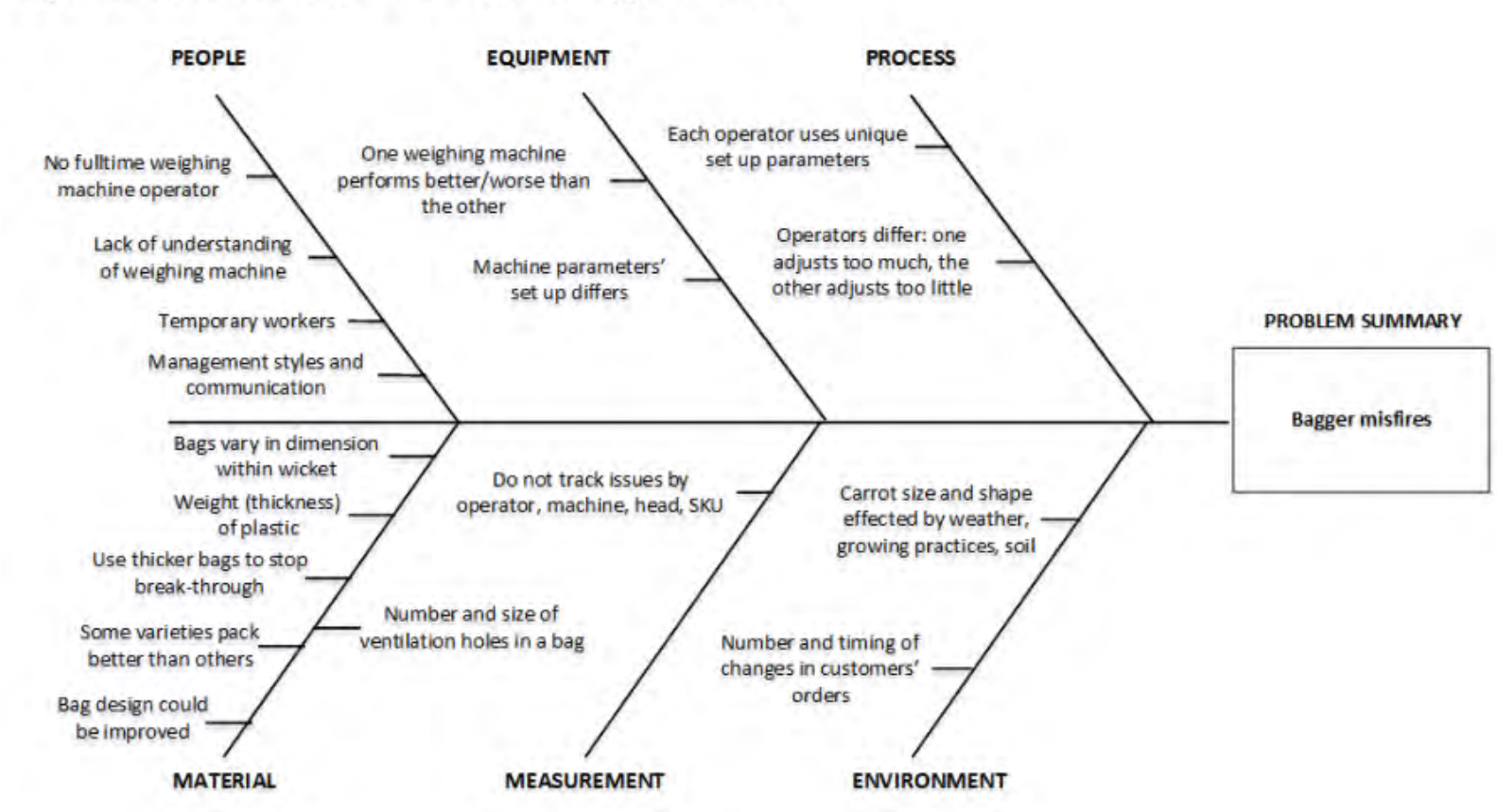
The capital investment required to establish and operate these extended packaging facilities has been significant. The Growing Forward 2 funded project between GF and VCMI looked to improve the performance of packaging facilities by making minor improvements at multiple points along the packing line and associated activities, such as procurement and marketing.

Identifying improvement opportunities

Challenges faced by Gwillimdale that can negatively impact performance include 1) the number of labels under which vegetables are packed, 2) enormous variations in order size, 3) differing pack size, and 4) late receipt and/or ongoing changes to orders. On any day, Gwillimdale fulfills multiple customer orders with a variety of products, packed in different sizes. Variations in the size, quality, consistency and timing of vegetables received directly from the field or out of storage can also impact performance.

A tool known as overall

Figure 2: Potential Causes That Lead to Bagger Misfires



equipment effectiveness (OEE) was used to calculate how closely Gwillimdale’s primary packing lines were operating compared to what is possible. OEE provides a normalized means to compare performance across packing lines and SKUs, identifying improvement opportunities and the root causes of current issues.

OEE is calculated by measuring the following three factors: % planned up time x % planned run rate x % first time quality

Up time is the number of hours that the equipment is planned to be in use. Run rate is the maximum speed which the equipment can operate effectively to produce the required output. First time quality is the actual production rate of products that meet intended quality and thus do not require rework or are not rejected. A good target OEE is 85 per cent – below 85 per cent equates to improvement opportunities; an above 85 per cent equates to operational excellence.

A number of issues were identified that impacted the performance of the packing line, particularly when packing carrots. Opportunities to improve GF’s OEE for carrots by a third were identified against the targeted 85 per cent. Certain easily observable issues, such as a single washing and polishing line feeding two grading lines (each handling differently sized carrots), would require considerable investment in capital.

Other less obvious issues stemmed from the weighing and packing equipment. At times, this issue led to a backup

of carrots that forced both lines to stop entirely. Line stoppages created waste and challenges that impact the wider business — from front-line workers to senior management and dispatch.

Another issue related to the management of packaging materials. The number of pack sizes, formats and designs – along with associated items, such as clips to seal bags shut – make managing the supply of packaging materials a complex process. Order-to-delivery cycle times and variations in quality add further complexities to the management of packaging materials.

Misfires

The most common issue impacting the lines’ performance was identified as bagging equipment misfires. The OEE identified that misfires most commonly occurred when the weighing head incorrectly grabbed a new bag ready for filling, or carrots protruded from the top of the bag. The latter was one of the factors that led to the third most common cause: incorrectly closed bags. Bags were also tearing during their filling, closing and packing into 50lb masters.

A key insight gained from the cause and effect analysis is that the bagger’s operation and function varied. This was due to tribal knowledge from individual operators that was gained over time. During the year, at least three separate people operated the machine. There were no written standard operating procedures based on experience for workers to follow. Nor was there a process for monitoring performance or

reporting incidences by operator, in a manner that could be directly acted upon as part of a continual improvement process. In addition, the main operators did not tend to proactively seek advice when an issue arose, which exacerbated the impact that misfires had on performance.

Reasons why the present situation of operator effectiveness had arisen was largely due to the management of staff having essentially remaining unchanged, while the scale and complexity of GF’s packing line had evolved markedly. Limited year-round access to local skilled workers has also played a role in shaping the current situation. The GF team determined that a sound business case existed for hiring a full time mechanically-minded person who lived locally.

Other potential causes lying behind the baggers’ underperformance included the material from which bags were constructed, bag design, and differences of ~1/8 inch (3 – 4mm) in the size of bags contained within the same wicket. Light-weight plastic has a greater tendency to tear or break loose from the bagger head. Bags with a larger number of smaller ventilation holes than traditional carrot bags were found to reduce the incidence of misfires, though the impact of these non-traditional bags on carrots’ freshness and shelf life had not been objectively evaluated.

Carrot variety and growing practices/conditions were also identified as causing misfires. Misshapen carrots can result from differences by variety and growing conditions (including

weather, production practices and soil type).

Conclusions

Establishing a more structured management hierarchy would involve holding regular meetings between line operators and management. Line meetings would primarily take the form of a daily huddle before work commenced — to share the prior day’s performance and that day’s targets, and discuss any issues or problems discussed. Senior managers would meet weekly to discuss key performance indicators and pressing issues. More detailed monthly management meetings would involve a thorough review and discuss both opportunities and issues from operation and strategic perspectives.

The structure of daily management interactions would be supported by establishing: 1) detailed job descriptions that define individuals’ responsibilities, the business operations for which they are accountable, and measurable targets against which their performance is measured; and 2) an organizational chart that graphically shows to whom individuals report – along with the teams, operations and functions for which they are directly responsible and therefore supervise.

Editor’s note: This is an excerpt from the case history. For the entire report, go here: <http://bit.ly/2B9UUIG>

NEWSMAKERS

Honouring individuals who lead teams

Vaughn, Ontario -- For 26 years now, the Ontario Produce Marketing Association has honoured the industry’s brightest lights, both early in their careers and after a life-time. This year’s Gala and Awards Ceremony was held November 17.

“The feedback we received that night was extremely positive!” commented Virginia Zimm, president of the OPMA. “Every year, I am amazed by the camaraderie and friendship that exists in this industry considering many are competitors. This event demonstrates that no matter what part you play in the value chain, we are all in this industry to achieve one common goal – increase produce consumption! It’s an opportunity to publicly congratulate those who demonstrate their commitment to the industry above and beyond regular business, while enjoying great food, music and reconnecting with friends and business associates.”

This year’s awards were presented to three deserving individuals whose efforts have made a significant impact in the produce industry over the course of the last year.

- The OPMA Fresh Award, presented to a young individual



Dr. Martin Gooch, Value Chain Management International

[under 40] who demonstrates a fervent determination to improve the quality, distribution or consumption of fruits and vegetables, was awarded to **Matt Ecker** from Vineland Growers Cooperative.

- The Cory Clack-Streef Produce Person of the Year Award, presented to an individual who has worked tirelessly to increase the consumption of fruits and vegetables through innovation, collaboration and hard work, was awarded to **Dr. Martin Gooch**, CEO of Value Chain Management International.

- Lastly, the OPMA Lifetime Achievement Award, presented to an individual who has dedicated their life to improving the transaction process

between produce sellers and buyers to ultimately increase the consumption of fresh fruits and vegetables, was awarded to **Fred Webber** from the Dispute Resolution Corporation. The OPMA would like to congratulate all the award recipients for their hard work and dedication to improving the quality, distribution and consumption of fresh fruits and vegetables both inside and outside of Ontario!

Every year, one lucky gala attendee is eligible to win the grand prize - a \$3,000 travel voucher towards a trip of their dreams. Congratulations to Val Costa from the Ontario Food Terminal Board.

Moving forward, the OPMA is getting into the Christmas



Matt Ecker, Vineland Growers' Cooperative



Fred Webber, Dispute Resolution Corporation

spirit by preparing for their annual Food Share program. They will partner with the Toronto Wholesale Produce Association and Daily Bread Food Bank to distribute more than two thousand 50 lbs. fresh produce boxes to deserving

families across the GTA. If you wish to volunteer or donate produce, please contact the OPMA to find out how to get involved.

Source: Ontario Produce Marketing Association November 22, 2017 news release.

Loblaw to offer home delivery

PETER CHAPMAN



Stokes Seeds Trial Evaluation Researching the best for our customers since 1881.



Aldrin

56 day, high quality dark green 5.25 in/13.5 cm very straight pods.



Elle

78 day, 7.5-8 in/19-20 cm yellow with 16-18 row count and refined ear.



Aquarius

70 day, uniform, high quality white with smooth, firm, heavy curds.



Currier

74 day, extra large, blocky dark green to red four lobed high quality fruit.

Henry Zomer
ON, MB, SK
905-308-4396

Leah Erickson
AB, BC
604-957-2359

Bridget Visser
ON, MB
905-715-8595

Laura Caralampides
QC
514-984-0662

Rob Hovius
ON, PEI, NB
519-580-3231

Paul Banks
ON, NS
905-688-4300

Marc André Laberge
QC
514-984-4589

— Quality Seed Since 1881 —

T: 1-800-263-7233 | F: 1-800-272-5560 | www.StokeSeeds.com | Box 10 Thorold ON L2V 5E9

The race to win e-commerce consumers in food heated up with the announcement from Loblaw on November 15 to partner with Instacart. Loblaw’s decision is no doubt driven by the threat of Amazon moving more aggressively into food.

Positives for Loblaw include a solution for convenience-driven consumers in two of their most lucrative markets: Toronto and Vancouver. These early adopters are important customers at Loblaw stores that the grocer cannot afford to lose. These are high-margin shoppers willing to pay a premium. How much of a premium?

Loblaw has not announced its home delivery structure yet, however Instacart’s delivery fees offer some insight. Their prices range from a low of \$3.99 depending on the order size and delivery time, to a high of \$9.99 for a one-hour delivery of an order less than \$35. On top of that, expect a service fee of 7.5 per cent of the value of the order.

Loblaw probably expects there is an opportunity to win some customers from others offering home delivery such as Walmart, Grocery Gateway and Vancouver’s service, Fresh St Market.

The pace of change is accelerating – note the December 6 rollout in Toronto



-- and the move is not perfect from a Loblaw perspective. Consumers will shop online using Instacart, not Loblaw websites. This means Loblaw will not have direct contact with consumers.

The second issue for Loblaw is that consumers using this platform will not earn or be able to redeem PC points. Given the allure of PC Points, this could be a deterrent for some consumers. Avid PC Point collectors are probably the same early adopters who would want online shopping and delivery.

Loblaw also announced it would be closing 22 stores, citing rising labour costs in Ontario and Alberta and other competitive pressures. This is nothing new as population shifts, new stores are built and some locations just become unprofitable. With more food being sold in Shoppers Drug Mart and the shift to online shopping for food, expect to see more stores closing in the future.

GREENHOUSE PRODUCTION

Mucci’s expands strawberry greenhouses

KAREN DAVIDSON

Mucci Farms, a pioneer in growing strawberries under glass, is claiming top place in North America with its recently opened \$12 million second phase. The original investment of \$24 million was so successful in terms of agronomics and customer demand that expansion is moving swiftly.

“Mucci Farms can proudly say we are putting Kingsville, Ontario, on the map for having the largest strawberry greenhouse not only in Canada but in North America,” says Joe Spano, a vice-president of sales and marketing.

In 2018, the company expects to add 12 acres to the existing 24 acres of strawberries. The pristine white piping contributes to an other-worldly experience, especially when artificial lighting is turned on. Negotiating a lower electricity price was key in expanding. The plan is to concentrate strawberry growing in Kingsville, and not to new facilities outside of Canada. The current phases also include the use of diffused glass which reduces stress on the plants by providing even sunlight. High-pressure fogging systems cool down the greenhouse in the hotter months. A swing gutter system allows for the amount of maximum plants per square meter.

The greenhouse-grown fruit is called Smuccies Sweet Strawberries. They are retailed at a range of \$4.99 to \$5.99 for a 12-ounce clamshell. The competitive advantage is that no pesticides are used and flavour compares with field-grown. Furthermore, it’s a crop that can be grown year-round.

Building expertise in greenhouse strawberries is a new endeavor, expanding the range of products from greenhouse tomatoes, cucumbers and peppers. Since partnering with Dutch growers Ton Bastiaansen and Joost van Oers in January 2016, Mucci Farms has seen accelerated growth and a greater demand for greenhouse-grown strawberries.

"Overwhelming, is the best way I can describe how our Smuccies are being received," says Spano. "Super sweet, clean, on the shelf within 24 hours of harvest and grown in an environment that is unaffected by inclement weather."

The product has received accolades from multiple industry associations for best packaging, best new fruit and best kid-centric product. At the recent Produce Marketing Association’s Fresh Summit

Conference and Expo in New Orleans, the company won the Kids’ Choice Award for its Smuccies Layered Strawberry and Mango Dip.

Photo right: Smuccies Sweet Strawberries are in Ontario grocery stores now, in time for the holiday season. Photo by Glenn Lowson.



Production Insurance For fruit

Connecting producers with programs

1-888-247-4999 | agricorp.com

Insure your fruit by December 20

For over 50 years, Production Insurance has proven to be a valuable and reliable risk management tool. Fruit growers whose crops have been impacted by things like cold temperatures, frost and hail have been compensated for loss and have found some peace of mind through Production Insurance.

Not covered? Contact Agricorp today to sign up

Fruit growers who want to enrol in Production Insurance or add newly planted acres, orchards or vineyards should contact Agricorp today to establish coverage by December 20.

Step 1: Contact Agricorp at 1-888-247-4999

Step 2: Meet with an adjuster who will assess your fruit and trees or vines, and provide you with an estimated liability.

Step 3: Pay your premium deposit. Your premium balance is due in the spring.

Review before you renew

Review your renewal documents before deciding on this year’s coverage and ask yourself:

- ▶ What changes have you made to your business?
- ▶ What risks does your farm face this year?
- ▶ Will your current coverage protect you if you experience a severe, unexpected loss?

Submit premium deposits, inventory reports and any coverage changes by **December 20, 2017.**

New last year for apples, tender fruit and grapes

- ▶ Tender fruit trees are now covered
- ▶ Younger trees and vines are eligible for coverage
- ▶ You can choose additional tree or vine coverage

To learn more about tree and vine coverage, call us or visit agricorp.com.

Apples • Grapes • Strawberries
Pears • Plums • Peaches and nectarines • Sweet cherries • Sour cherries



LOBBYING

Canadian produce industry urges parliamentarians to consider important trade and health issues



On November 7 and 8, industry leaders representing the Canadian Produce Marketing Association (CPMA) and the Canadian Horticultural Council (CHC) met with more than 50 parliamentarians and civil servants in Ottawa to discuss key issues currently affecting the Canadian fresh fruit and vegetable sector. Notably, CPMA and CHC representatives addressed the need for continued free and fair trade agreements with new and

emerging markets to support industry, and advocated for the adoption of an integrated and collaborative approach to increasing fruit and vegetable consumption in a new Food Policy for Canada. Both issues are critical for the industry, and have severe implications on the cost and quality of produce, the health of Canadians, and Canada’s potential for economic growth, especially within the context of current NAFTA renegotiations. Industry repre-

sentatives also discussed labour policy and the need for financial protection for produce sellers. “The fresh fruit and vegetable industry plays a significant role in supporting Canada’s goals to provide safe, affordable, and accessible product year round,” stated Rick Alcocer, CPMA chair. “The produce supply chain had an estimated economic impact of \$15.7 billion in real GDP and supported 181,566 jobs in 2016, all the while encouraging

healthy eating habits.” “Good health starts with what we put in our bodies, and we know that the healthiest foods are fruits and vegetables,” states Alvin Keenan, CHC president. “The federal government needs to assume a leadership role in offering accessible fruit and vegetable options to all Canadians, from coast to coast to coast.” Following these productive meetings, CPMA and CHC hosted a reception featuring

Half Your Plate Ambassador Chef Michael Smith. This well-attended event featured a food demonstration with Chef Michael and Minister of Agriculture and Agri-Food Lawrence MacAulay and provided representatives of the produce industry a more informal environment to network and cement relationships with parliamentarians and their staff. *Source: CHC November 9, 2017 news release.*

QUALITY SEED, QUALITY SERVICE
SEEDWAY VEGETABLE SEEDS • (800) 952-7333
WWW.SEEDWAY.COM

ISTANBUL *Fresh Market/Slicing/Cello*
75 Day. Very uniform. Long and slightly tapered roots. Strong and erect tops. Very good early yields. Very high quality interior. Deep orange with indistinguishable core.

BIKER *Leek*
NEW! 90 Day. Very straight long shaft and erect leaves that make it easy to bunch. The foliage is dark green and clean since it tends to not show insect damage. Good field holding ability and long shelf life.

CARTIER *Yellow Long Day Storage Onion*
102 Day. Early maturing storage onion with strong skin, fine neck and long term storage capability. Matures evenly for easy harvest.

Frank Jonkman
Central & Eastern ON
(519) 801-5882
fjonkman@sympatico.ca

Our Experienced Sales Representatives Can Help You!

Brian Tregunno
SW ON, AB, MB
(416) 505-0853
bbtregun@cogeco.ca

NEW FOOD SAFETY REGULATION

The DRC rolls out Safe Food for Canadians Regulations outreach initiative

The proposed Safe Food for Canadians Regulations (SFCR) were published in Canada Gazette, Part I on January 21, 2017 and are expected to come into force in mid-2018.

Although much of the content of the proposed regulations concerns food safety and traceability, important trade and commerce requirements which pertain specifically to buyers and sellers of fresh fruits and vegetables are also part of the regulations. Specifically, there is a requirement for buyers and sellers of fresh fruits and vegetables to be members of the DRC unless exempt.

A DRC membership is required to trade fresh fruits and vegetables (i.e.: buy, sell, import, export) unless otherwise exempted as per the proposed regulations. Some buyers and sellers of fresh fruits and vegetables who were not previously subject to the requirements of the CFIA Licensing and Arbitration Regulations may be subject to the new requirement.

To prepare for the coming into force of the proposed regulations and ensure increased and wide awareness of the requirement, the DRC has embarked on an education and outreach initiative to ensure, to the extent possible, that there are no surprises. This includes cross-country presentations, factsheets and a self-assessment to assist in determining if one is subject to the proposed requirement for a DRC membership.

Presentations may be delivered in various formats and duration ranging from a high-level overview of the regulatory requirement with a focus on changes from the current regulation, to a 30-minute (or longer) presentation or seminar detailing DRC member's rights and obligations and the dispute resolution process. To date presentations have taken place in PEI, Ontario and BC. "DRC team members are available to present at events and there is no cost for this thanks to financial support from AAFC Growing Forward," notes DRC President & CEO Fred Webber.

The following outreach materials are available in English, French, Spanish, Chinese and Punjabi:

Introduction and Background: Regulatory requirement for a membership in the Fruit and Vegetable Dispute Resolution Corporation

Self-assessment

- Agent, Grower's Agent, Broker
- Farm Markets & Direct to

- Consumers
- Grower, Shipper, Packer
 - Retail, Foodservice & (Certain) Restaurants
 - Wholesalers and Distributors

To learn more about the initiative or to schedule a presentation, contact the DRC at 613 234 0982 or info@fvrdc.com.

About the DRC

The DRC is a member-based organization whose core work is

"business-to-business private commercial dispute resolution." In other words, DRC is a referee between parties when the purchase and sale do not go smoothly or according to plan. The DRC provides the North American produce trade with the harmonized standards, procedures and services necessary to avoid and resolve commercial disputes in a timely, cost-effective manner. The DRC is a partner in ensuring fair and problem-free transactions and building



long-term relationships. In addition to fulfilling a regulatory requirement, DRC membership is good business and good risk


management as membership benefits are extensive and provide significant value and business protection.


The world has never seen a nematicide like this before.

VELUM PRIME™

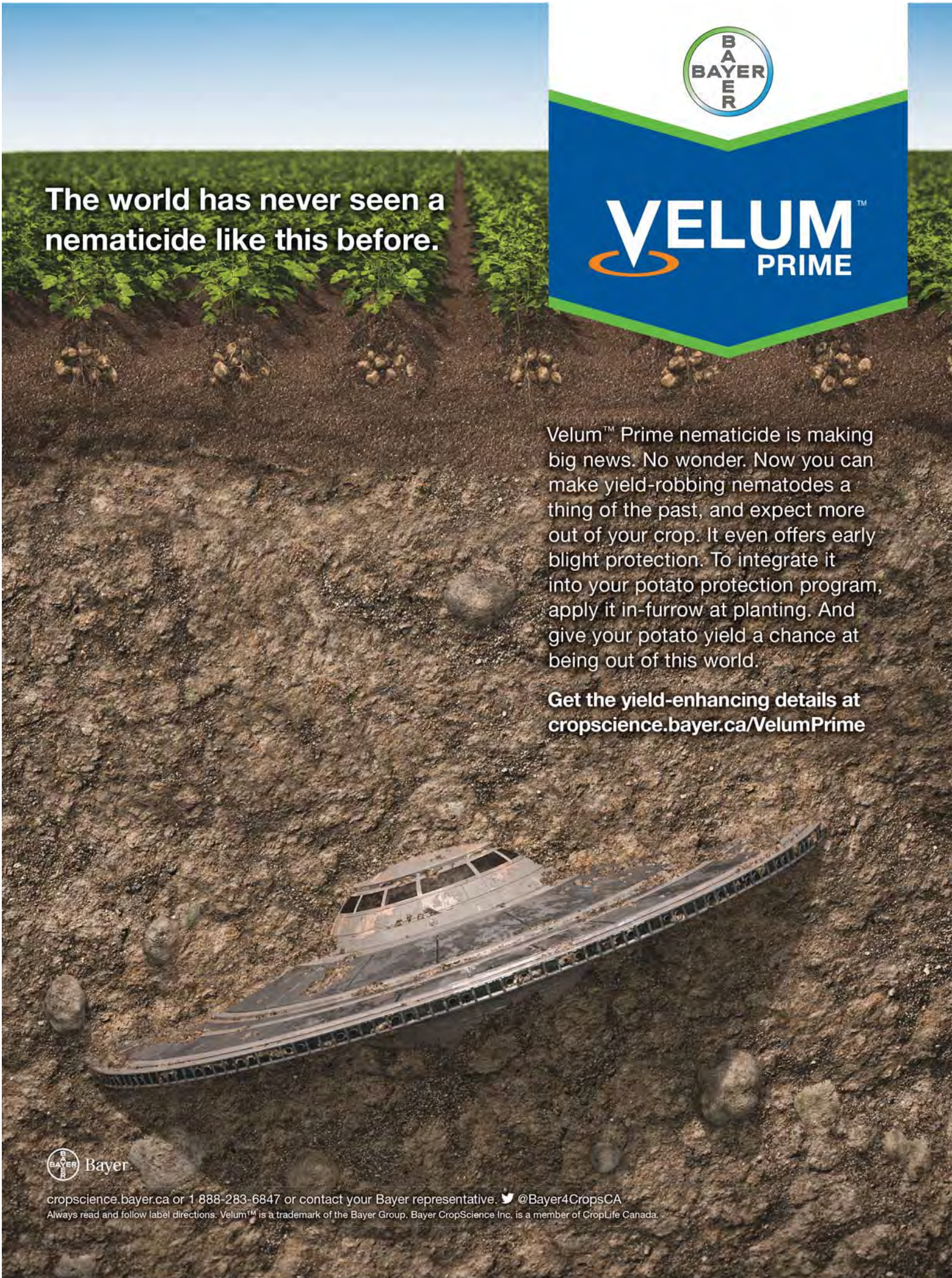
Velum™ Prime nematicide is making big news. No wonder. Now you can make yield-robbing nematodes a thing of the past, and expect more out of your crop. It even offers early blight protection. To integrate it into your potato protection program, apply it in-furrow at planting. And give your potato yield a chance at being out of this world.

Get the yield-enhancing details at cropscience.bayer.ca/VelumPrime

 Bayer

cropscience.bayer.ca or 1 888-283-6847 or contact your Bayer representative.  @Bayer4CropsCA

Always read and follow label directions. Velum™ is a trademark of the Bayer Group. Bayer CropScience Inc. is a member of CropLife Canada.



Success, succession, successful, successor



JAN VANDERHOUT
CHAIR, OFVGA

Every person who is in business has a goal to be successful in financial terms, but at some point they will need to answer what (or who) is it all for. Who will be their successor when they retire or pass on from life on this earth? Is good succession a measure of success?

As farm business owners we often have a relatively high net worth and from time to time we might feel pretty successful. Some people say there is no money in farming but this is actually not true. There is plenty of money in farming. You just can't get any of it out. I

am sure that you cannot take it with you when you die either. So how can we be successful in succession?

Succession planning is not a one-size-fits-all discussion but rather every person or perhaps every family must find a custom-tailored solution that is just the right fit for them. For some it may be passing the farm on to their children. For others without a family member interested in taking over the business, transitioning the business over to one or more of their employees may be a good option. For others it is simply a matter of selling the business on the open market either as a going concern or simply through the sale of the assets. These are all valid options for farm or business succession.

My brother and I are now the third generation running our family farm so I have some first-hand experience at how this can work. I am extremely thankful that our father saw the value in allowing us to become part of the farm business at a relatively young age allowing us to grow into the business as it grew and to share in its profits in a very timely manner. I am sure that

Dad is also happy that there was someone to take over the responsibility and headaches of running the farm, allowing him to back out of the business at a comfortable pace for him as well as us.

Without going into details I will say that our arrangement was one that found a balance between paying a reasonable amount for our piece of the farm while leaving Dad and Mom enough to retire comfortably and us with payments that we could manage while still growing the business. I am thankful because I know that if we had to go to the bank and borrow the full value of the farm we would not be able to make the payments. I am also thankful that we were able to begin this process at a young age and participate in the growth of the business. Our parents were happy too because they were able to slowly hand over responsibilities and ease into retirement at a pace they were comfortable with. Our family has been successful at succession so far.

With eight children between my brother and me, with one of them working full time on the

farm, already it is likely that there will be a successor or successors coming up. The challenge now is that the farm has grown significantly in terms of the cost of building it up. It would be difficult to sell the farm at its book value to our children expecting them to borrow the funds for the purchase. Borrowing that much money would put them in a very precarious position as margins are currently far lower than what would be required to service that kind of debt. Another option would be to retain ownership till death and have some life insurance to offset the taxes allowing them to carry on the business. We will need to consider what advantage should be given to those who choose to make the farm their life's work as opposed to making a career in some other profession. We will need to make an incentive for the next generation to grow the farm and to keep it sustainable. They need to benefit themselves as they take on more and more responsibility in the business. We certainly must work with accounting and legal professionals to find solutions that work

within tax laws. We must ensure that the tax burden on either of our deaths does not cripple our successors. My brother and I will also need to maintain some kind of income from the farm as we grow older.

Children who do not participate in the farm should not be neglected, nor should they receive an inheritance equal to their siblings who have made the family business their life's work. Our farm's viability hinges on all of the pieces working together as one unit. This is certainly a delicate balance especially since we do not know the number of our days. How does one plan for the wide variety of possible outcomes and unknown timelines?

As the average age of farmers in Ontario becomes more and more senior we all need to think about how we can encourage someone to continue on the work that we have made our life's passion. We need to somehow encourage and incentivize successors to take the torch from us and continue the honourable work of food production. We need to give them the opportunity to succeed.

SEASON'S GREETINGS



STAFF
Publisher: Ontario Fruit and Vegetable Growers' Association
Editor: Karen Davidson, 416-557-6413, editor@thegrower.org
Advertising: Carlie Melara 519-763-8728, advertising@thegrower.org
Digital marketing: Amanda Brodhagen, marketing@thegrower.org

The **Grower** reserves the right to refuse any advertising. Any errors that are the direct result of **The Grower** will be compensated at our discretion with a correction notice in the next issue. No compensation will be given after the first running of the ad. Client signature is required before insertion.

The Ontario Fruit and Vegetable Growers' Association is the sole owner of **The Grower**. All editorials and opinions expressed in **The Grower** are those of the newspaper's editorial staff and/or contributor, and do not necessarily reflect the view of the association.

All rights reserved. The contents of this publication may not be reproduced either whole or in part without the prior written consent of the publisher.

OFFICE
355 Elmira Road North, Unit 105
Guelph, Ontario N1K 1S5 CANADA
Tel. 519-763-8728 • Fax 519-763-6604

The Grower is printed 12 times a year and sent to all members of the Ontario Fruit and Vegetable Growers' Association who have paid \$30.00 (plus G.S.T.) per year for the paper through their commodity group or container fees. Others may subscribe as follows by writing to the office:

\$30.00 (+ HST) /year in Canada
\$40.00/year International

Subscribers must submit a claim for missing issues within four months. If the issue is claimed within four months, but not available, **The Grower** will extend the subscription by one month. No refunds on subscriptions.

P.M. 40012319

ONTARIO FRUIT AND VEGETABLE GROWERS' ASSOCIATION BOARD OF DIRECTORS 2017

MANAGEMENT COMMITTEE
Chair: Jan Vanderhout, Waterdown
Vice-Chair: Bill George Jr., Beamsville
Fruit Director: Norm Charbonneau, Port Elgin
Veg Director: Mike Chromczak, Brownsville
Director: John Thwaites, Niagara-on-the-Lake

BOARD OF DIRECTORS
Apples: Charles Stevens, Newcastle
Fresh Vegetable - Other: Kenny Forth, Lynden
Tender Fruit: John Thwaites, Niagara-on-the-Lake
ON Asparagus Grws.: Mkg. Brd.: Mike Chromczak, Brownsville
GGO/Fresh Grape Growers: Bill George Jr., Beamsville
Fresh Vegetable - Muck: Jason Verkalik, Bradford
ON Potato Board: Mac James, Leamington
Small Fruit/Berries: Norm Charbonneau, Port Elgin
ON Ginseng Growers: Remi Van De Slyke, Straffordville
Greenhouse: Jan Vanderhout, Waterdown
Greenhouse: George Gilvesy, Tillsonburg

OFVGA SECTION CHAIRS

Crop Protection	Charles Stevens, Newcastle
Research	Harold Schooley, Simcoe
Property	Brian Gilroy, Meaford
Labour	Ken Forth, Lynden
Safety Nets	Mark Wales, Aylmer
CHC	Adrian Huisman, St. Catharines



PERSPECTIVE



Get ready for field-level DNA identification



OWEN ROBERTS
U OF GUELPH

Researchers are a step closer to having a portable, hand-held device and an array of tests that can positively identify species in the field, by their DNA.

This approach is already being used to try to reduce food fraud with species such as fish, which costs consumers millions of dollars a year and can compromise their health.

Researchers at the University of Guelph, where the initial specific tests used with this device were developed, think it will have many applications in the fruit and vegetable sector too, particularly for identifying and verifying pests.

Dr. Amanda Naaum is a senior research scientist with the university's new spin-off company, TRU-ID. At the Building Canada sesquicentennial lecture series in Guelph in early November, she demonstrated how the portable device she's working with can give users a yes-or-no reading for samples of species whose DNA sequences have been recorded in the university's Barcode Of Life Database (BOLD).

The database contains the barcodes or gene sequences for 500,000 species. It's been assembled over the past 15 years as part of an international effort to barcode all species on the planet, led by the groundbreaking research and development of Guelph's Prof. Paul Hebert. DNA barcoding uses a very short genetic sequence from a standard part of the genome, the way a supermarket scanner distinguishes products using the black stripes of the Universal Product Code.

Naaum says onsite analysis with portable technology such as the BioMeme two3 molecular diagnostic device she's using holds great promise. With just one swab from a sample, she can collect enough cells to run what's called a real-time PCR analysis onsite, using a smart phone app as an interface. Real-time PCR uses a molecular probe to detect the presence of specific target DNA.

Here's how it works. DNA

from a sample is placed in a tube with the molecular probe and other reagents that allow copying of a specific section of DNA, using cycles of heating and cooling. If DNA from a specific target (in this case, a specific species) is present in a sample, that section of DNA is copied. The probe generates fluorescence during this copying process. If that DNA is absent, no fluorescence is generated because no DNA is copied.

The app contains species-specific test information related to heating and cooling cycles needed to copy the target DNA. Naaum designs probes using sequences from BOLD as a reference that search for a specific region of DNA -- an even smaller portion of the DNA barcode -- that is unique to the target species.

In this way, samples can be rapidly screened in under two hours.

Naaum says food retailers could use the device onsite in their distribution warehouses to make sure the food shipments they receive are authentic, before they're packaged for the public. Or, in the case of species like fish, which are currently the focus of her work, inspectors could take it dockside to test if initial labelling is accurate, before imports get repackaged and shipped widely.

Naaum says portable species identification could be particularly helpful to find and differentiate apple aphid species. Two of these species, the green apple aphid (*Aphis pomi*) and the spirea aphid (*Aphis spiraeicola*), look almost identical, but respond differently to pesticides and have different life cycles that may require spraying at different times. "It can be critical to differentiate which of the two species are present for effective management," she says.

Rapid species-ID tests using real-time PCR are only going to allow screening for a specific target species. "You have to already know what you are looking for," she says. But, she adds, in many cases, confirmation of a species is what's really needed, and it's possible to quickly screen for a few of them if there's more than one important target.

These tests can be run easily by non-experts, using simple kits that have all of the materials and instructions for identifying a specific species from DNA extraction to interpret results.

Naaum's colleague Prof. Bob Hanner, of the Biodiversity Institute of Ontario, says a test for a poinsettia pest *Bemisia*

tabaci developed back in 2014 by his graduate student Andrew Frewin is the kind of species identification that could be discovered by the Biomeme device.

"Knowing which biotype is present can help inform management decisions in commercial greenhouses to balance the use of pesticides and biocontrol agents most efficiently," says Hanner. He's inviting collaboration to address any early detection and identification issues faced by the fruit and vegetable industry.

Photo right: Amanda Naaum holds a portable DNA identification device. Photo by Alaina Osborne.



POLICY ANALYST POSITION AVAILABLE

Policy Analyst, Edible Horticulture (Energy, Property, Infrastructure, Environment and Climate Change)

The Policy Analyst is responsible for providing policy research, monitoring and analysis on assigned research topics. This position provides staff support to internal OFVGA committees and the OFVGA Board of Directors. The Policy Analyst also represents the OFVGA by participating on industry and government committees and working groups with the goal to influence policy and program changes for the benefit of OFVGA's members. For full job posting visit:

www.agcareers.com/ontario-fruit-vegetable-growers-39-association/policy-analyst-job-634195.cfm

Application deadline: December 31/2017



Musings about NAFTA

BRUCE KELLY

There is an old joke about the sales guy that comes home from a sales call and announces: I have good news and bad news. The good news is that I got Walmart as a new customer, and the bad news is that I got Walmart as a new customer. Canadian trade with the U.S. is a little like having Walmart as a customer; it’s so big that it is an irresistible market. But it is so powerful that you may lose control of your product and your company in the process.

The North American Free Trade Agreement (NAFTA) (1994) has brought 25 years of stability and growth to trade across North America but that stability and almost free trade in goods and services are in jeopardy in the current round of NAFTA renegotiations. Repeated threats by U.S. President Trump to abandon NAFTA in favour of separate bi-national trade agreements is causing huge uncertainty in North American trade and business development in Canada this year. Trump assumes that separate bi-national deals can be made more U.S.-centric as Canada or Mexico alone would lose some of their bargaining power.

American and Canadian fruit and vegetable companies, for the most part, have united in their support for modernizing and improving NAFTA. The Produce Coalition for NAFTA believes that important issues such as border procedures, harmonization of regulation brings opportunities for improvements in free trade, but is concerned that the current negotiations are fixed on imposing new trade barriers instead of eliminating them. Proposals to make it easier to impose anti-dumping duties on produce threatens the dynamic nature of in-season trade of perishable fruits and vegetables.

In a letter to Canadian trade officials the OFVGA agrees that the proposed new perishable/seasonal trade remedy provisions would open the door for frivolous and harassing investigations based on narrow and regionalized circumstances and ignores the seasonality of growing regions and differing maturity and availability of fruits and vegetables from south to north during the growing season. Allowing trade remedy powers to be triggered by a small group of regional producers might disrupt supply chain networks, distribution networks and retailers that have grown trade

under the existing stable rules under NAFTA.

The U.S. does not like to be told what to do or how to interpret trade disputes. As such they are calling for an end to Chapter 19 which governs the dispute settlement process. As an example, there is the U.S. commerce department practice of “zeroing” out the non-dumping margins when calculating whether dumping occurred over the course of an investigation. The World Trade Organization (WTO) has repeatedly found this interpretation inconsistent with international trade rules, yet the commerce department becomes duplicit in using this as a trade delay tactic. The department knows that it will take several years to be overturned, blocking access to markets in the meantime.

The proposed changes would be a huge step backwards as they open the doors for frivolous and trade blocking tactics, a time honoured tradition which act as non- tariff barriers to trade. Just look at Country of Origin Labelling (COOL) that cost Canadian pork producers millions of dollars and years of blocked access to U.S. markets that allowed the American pork industry to grow while the Canadian industry languished because of uncertainty.

President Trump does not have the final say on NAFTA. Rather it would require an act of Congress, but that has not stopped him from setting the negotiation agenda which apparently gets more and more demanding with each round. Dismantling the pact would require rebuilding global supply chains and would mean a return

to tariffs on goods the United States imports and exports — all of which would be painful for all three countries.

Let’s face it. Food production and distribution are not what Trump is after. It’s American manufacturing of cars. Agricultural trade would be collateral damage or an “unintended consequence” of the demise of NAFTA.

Agriculture seems to be impacted by just too many “unintended consequences”

these days.

For more information on environmental or animal welfare projects at Farm & Food Care Ontario, contact Bruce Kelly at bruce@farmfoodcare.org

Bruce Kelly is programs manager, Farm & Food Care Ontario.

COMING EVENTS 2017

Dec 1	Ontario Apple Growers District 5 meeting, Holiday Inn, Bowmanville, ON
Dec 2	Prairie Fruit Growers of Manitoba Annual General Meeting, Winnipeg, MB
Dec 4	Ontario Apple Growers District 3 meeting, Grace United Church, Thornbury, ON
Dec 5-7	Great Lakes Fruit, Vegetable and Farm Market Expo, Grand Rapids, MI
Dec 6	CanadaGAP Annual General Meeting, Ottawa, ON
Dec 6	Ontario Potato Board Annual General Meeting, Cambridge Holiday Inn, Hall C, Cambridge, ON
Dec 12	Fresh Vegetable Growers of Ontario Annual General Meeting, OMAFRA office boardroom, Woodstock, ON
Dec 12	Keystone Potato Producers’ Association Annual General Meeting, Canad Inn, Portage la Prairie, MB
2018	
Jan 10-12	National Potato Council Potato Expo, Rosen Shingle Creek Resort, Orlando, FL
Jan 16	Les Producteurs de Pommes du Quebec (Apple Growers of Quebec) Annual General Meeting, L’Espace Rive-Sud, La Prairie, QC
Jan 16-18	Empire State Producers’ Expo, Onondaga Community College’s SRC Arena & Events Center, Syracuse, NY
Jan 21-24	North American Strawberry Growers’ Association Annual General Meeting, New Orleans, LA
Jan 23-24	Nova Scotia Fruit Growers’ Association Annual General Meeting and Convention, Old Orchard Inn, Greenwich, NS
Jan 23-24	Ontario Apple Academy Conference, Nottawasaga Inn, Alliston, ON
Jan 23-25	Manitoba Potato Production Days, Keystone Agriculture Centre, Brandon, MB
Jan 24	BC Agricultural Council Gala, Quality Hotel and Conference Centre, Abbotsford, BC
Jan 25-27	20th Annual Pacific Agriculture Show, Tradex Exhibition Centre, Abbotsford, BC
Jan 31-Feb 1	Ontario Processing Vegetable Industry Conference, Four Points by Sheraton, London, ON
Feb 7-9	Fruit Logistica, Berlin, Germany
Feb 13	Canada Ag Day
Feb 15-16	British Columbia Fruit Growers’ Association AGM, Coast Capri, Kelowna, BC



Make sense of your money

AgExpert Analyst is accounting software built for agriculture

Keep your business on track and on budget with AgExpert Analyst. It’s easier to use than you think. Just ask your accountant.

fccsoftware.ca | 1-800-667-7893



Farm Credit Canada
Advancing the business of agriculture





RETAIL NAVIGATOR

Large stores are growing



PETER CHAPMAN

Selling food is changing and it is changing fast. Food is a great draw and many mass-market retailers are using it. This is challenging for the traditional food distributors. Every dollar is important and the more fragmented the market, the tougher it is. One of the segments that has been growing in recent years are what I call large stores. They have different offerings and different pricing platforms but they all deliver great value.

Growing for different reasons

These large stores have been growing with significant increases of square footage in the last 10 years. We have experienced the growth of Walmart Super Centre and Costco is now operating in markets that would have been considered ‘too small.’ In western Canada Save On Foods, have been opening a lot of stores and now have a presence from B.C. to Manitoba. Loblaw have their Real Canadian Superstores in western Canada and Ontario and some Atlantic Superstores in Atlantic Canada would qualify. The challenge for suppliers working with Loblaw is that discount merchants are responsible for Real Canadian Superstore and the market division look after Atlantic Superstore.

Selling to large stores

Large stores deliver value in the market. They are not always the lowest price; this is the territory of the discount stores. Their size and listing base give them economies of scale that allows these stores to operate with lower margins than the traditional food stores. If you are selling to them most operate national programs. You will find a very similar offering in Walmart, Costco and Real Canadian Superstore, regardless of the market you are in. Walmart and Costco definitely see Canada as a market. It is interesting to note that in the large store segment of the Canadian market, U.S. retailers have the largest share. With

approximately 36 million people, Canada is smaller than California so you can understand why they see Canada as a market. Each retailer is different and if you are going to sell to them, value is key but so are other considerations. Costco will expect a different pack size and they are looking for low labour options with pallet-ready displays. You will need to meet shipping for many warehouses, which is exciting and difficult. You will also be expected to sell a certain amount of product in a certain time period to earn your space. Costco merchants are looking for fewer SKUS and they know what they are selling where. If you are selling to Costco watch your pricing because other retailers know their margin and they will work it back to compare to what you are charging them. Walmart continues its relentless pursuit of value, expecting volume growth to deliver economies of scale and better costs. The company is very good at execution and systems are integral to its business. Decisions are made in Canada but we have to remember Walmart is the largest retailer in the world. The company prefers fewer listings to deliver the same sales. There is more control label in Walmart than we used to see. The company continues to improve in the perishable departments. Real Canadian and Atlantic Superstore at Loblaw have the highest penetration of control label and they do have the Canadian buying power and fresh expertise of Loblaw. The stores have evolved from large impersonal stores to smaller fresh segments with a broad grocery offering. Overall, in perishable departments, they are strong where they have good operators. Save On Foods have increased their number of stores in Western Canada with a strong perishable presence, specials and a focus on local products. It will be interesting to see how the organization can support the recent growth. Retailers can usually rally to get stores open; it is the ongoing operation after the support leaves that can be a challenge. It is a tough segment of the market and they are the only regional player trying to compete. Opportunities You can move volume in this segment of the market. They are interested in volume and delivering great value. Large sizes are important and although they have more labour than

Western Canada	Ontario	Quebec	Atlantic Canada

discount stores, they do not have a lot. You will be successful if your items ‘sell themselves’ and require minimal handling. Although every market is different we do see large portions of shelf space devoted to foods of the world. The stores have the space and they merchandise items that appeal to consumers looking for large quantities of these products. Walmart, Loblaw and Save on Foods publish a weekly flyer which accounts for a significant portion of their volume. You will need to be in the ad game, aggressively, to be successful. The resources at the office are similar to the resources at the store. They cannot afford a lot of people so if you plan to sell to these retailers do not expect a lot of personal contact from the office. They have a lot to do and they do not have much time for the ‘extras.’ If you have any questions about selling your products in traditional food stores please

give me a call at (902) 489-2900 or send me an email at peter@skufood.com. Next month we will explore discount stores. RETAIL NEWS Sobeys’ new structure We are learning more about Sobeys’ new structure. They have announced the fresh merchandising functions will be in Toronto and grocery merchandising functions will be in Stellarton, N.S. Directors for each functional area have been announced. We have not learned who the category managers will be but it should be announced shortly. Once these people are in their positions the real work of getting back to operating the business will begin. It is very difficult as people are not sure where they will be working, if at all. Once the new people are announced suppliers should

begin the process of developing relationships with these people. If you know them, great; if not you have to understand where you are starting. Do not assume your previous category manager will take the time to explain every supplier. Despite the best plans, they are either on to a new job or left with no job. After going through this at Loblaw I can tell you it really is the supplier’s responsibility to move forward. Peter Chapman is a retail consultant, professional speaker and the author of A la Cart-A suppliers’ guide to retailer’s priorities. Peter is based in Halifax N.S. where he is the principal at GPS Business Solutions and a partner in SKUfood.com, an on line resource for food producers. Peter works with producers and processors to help them navigate through the retail environment with the ultimate goal to get more of their items in the shopping cart. peter@skufood.com



Quality Seed from Quality Growers

PEI Potato Board

90 Hillstrom Avenue, Charlottetown, PEI CANADA C1E 2C6 (902) 892-6551



Buy PEI Seed Potatoes with confidence:

- Grown and graded to Canadian Food Inspection Agency standards
- A wide range of public, private and niche market varieties available
- Canada’s #1 seed potato producing province

www.peipotato.com/industry/potato-seed



Seed Directory

View the Seed Directory

VALUE-ADDED PROCESSING

Hard pressed to craft a more profitable Canadian apple juice market

KAREN DAVIDSON

One of Canada’s fast-food chains has been hiding its success story under a bushel basket. For competitive reasons, the company doesn’t want to be named, but repeat orders are for thousands of bins of Ontario apples to be pressed into apple juice. Rather than source Chinese-made apple juice concentrate, the company has found profit in local product.

That’s the kind of hard news which encourages apple grower Brett Schuyler to get out of bed each morning. He’s also the point man for the Ontario Apple Growers when it comes time to negotiate apple juice prices with the province’s key processor: Lassonde’s Golden Town Apple Products Ltd in Clarksburg.

“The older generation may laugh at me and I understand they’ve been burned by the juice industry, but there’s nothing but growth potential,” says Schuyler. “The concentrate juice market relies on cheap labour and low shipping costs to be more competitive than fresh-pressed juice. Is it so unrealistic to think that this can change? Will places such as China be able to economically produce concentrate as its economy strengthens and

labour costs go up?”

As Schuyler points out, Canadian consumers may not realize that their apple juice is coming from China, Poland or Chile. He suggests looking for brands such as Tropicana with labeling that touts “Never from concentrate.” This product is labelled “100% fresh-pressed Canadian apple juice with no water or sugar added.” No wonder, the taste is so bright.

For Schuyler and other apple growers, the juice industry is a marketing dilemma. Since the 1990s, the Canadian apple juice industry has soured with the flows of Chinese apple concentrate at rock-bottom prices. As recently as 2016, Canada’s second highest-valued agricultural import from China is apple concentrate worth \$44.6 million. (see chart) Admittedly, some of that concentrate is processed and redirected to the U.S. But it’s a big number and still doesn’t include concentrate coming from other jurisdictions.

For the last decade or more, there hasn’t been much to negotiate on apple juice prices. The ‘grounders’ that don’t go to the fresh market have been almost worthless at a nickel per pound. The 2017 Ontario price is 6.3 cents per pound! With the huge investment in high-density orchards and increased labour costs, growers can’t be



Brett Schuyler

Canadian top 5 agri-food imports from China (CDN\$ million)

Imports	2014	2015	2016
Agri-Food Imports:	804.636	946.860	1,003.447
Dried vegetables and mixtures	31.553	38.675	53.616
Apple juice, unfermented	41.608	36.350	44.601
Garlic, fresh or chilled	20.151	28.758	44.093
Sugar confectionery, not containing cocoa	28.845	32.597	29.832
Prepared pasta	30.210	35.362	27.152

Source: Statistics Canada

producing apples for a few cents per pound. It’s a challenge to cover picking costs.

If Canadian consumers were to search for a home-grown apple juice, they would likely find it in jugs at national retailers. And if they were to have a side-by-side taste comparison of apple juice with Chinese concentrate and

Canadian fresh-pressed apple juice, the Canadian product would win hands down, Schuyler argues.

Currently, about 30 per cent of Ontario’s apples find their way to the processing channel: apple sauce, apple chips, slices, juice. That may seem like a high number, but consider that the industry standard of an 80 per cent packout leaves a lot of apples with no other home.

Algoma Orchards, Newcastle, Ontario offers perspective, having operated an apple juice facility since 2009. The factory wholesales and copacks “single-strength” juice or cider in jugs for major retailers. That means the apples are squeezed and juiced, then pasteurized with no preservatives.

“It’s a steady business,” acknowledges Kirk Kemp, co-owner Algoma Orchards. “But when you look at what’s happened to the juice category in the last decade, it’s become very crowded. The consumer can get combinations of strawberry, banana and mango juice. The consumer can get carrot juice. It’s no longer just a choice between orange, apple and tomato juice. So I don’t see a big growth opportunity. Apple juice is a sideline for us.”

Parallel to these developments is the growth of the local craft cider movement and association. Nick and Lindsay Sutcliffe started Pommies Cider in 2011, producing 15,000 litres. This year, the Caledon, Ontario-based business pumped out 650,000 litres.

“There were very few growers, just three with

products in the LCBO in 2011,” recalls Sutcliffe. “Now there are 27 SKUs of Ontario craft cider in the LCBO.”

By its own rules, the Ontario Craft Cider Association produces hard cider with 100 per cent Ontario apples and juice, never with concentrate. The industry has grown exponentially to the point that cider makers are concerned about enough supply of high-acid, high-sugar varieties such as Spy and Ida Red. Demand for Russets, for example, has resulted in a price increase to 30 cents per pound.

If mechanical harvesting comes into its own, then growers can afford to grow cider apples, especially if demand raises the price to more profitable levels.

“The real opportunity is to grow our own market,” says Sutcliffe. “If the provincial government supported us as they do craft brewers, then you would see a massive increase in ciders and demand for Ontario apples.”

Ontario cider sales topped \$85 million at LCBO stores in 2016. However, imports comprise 70 per cent of cider sales, echoing the situation that grape growers face.

Cider makers are excelling in the category and challenging what constitutes a hard cider. Some are barrel-aging cider and infusing it with hops. Others are adding wild yeast strains. “We are straddling the worlds of wine and cider,” says Sutcliffe.

Continued on next page



NORSECO

A team of experts
Top-notch seeds!



Customer Service
order@norseco.com
☎ 514 332-2275 | 800 561-9693
📠 450 682-4959 | 800 567-4594

Our Team of Experts

Warren Peacock
Ontario
Warren.peacock@norseco.com
☎ 519 426-1131 | 📠 519 426-6156

Michel Gratton
North & South Shores of Montreal
michel.gratton@norseco.com
☎ 450 781-6045

Gilliane Bisson
South Shore of Montreal
and Manitoba
gilliane.bisson@norseco.com
☎ 450 781-6049

Yves Thibault
Central, Eastern Quebec
& Atlantic Provinces
yves.thibault@norseco.com
☎ 418 660-1498 | 📠 418 666-8947

norseco.com

NORSECO
2914 Curé-Labelle Blvd., Laval (Quebec) H7P 5R9

VALUE-ADDED PROCESSING

Hard pressed to craft a more profitable Canadian apple juice market

Continued from last page

Jay Johnson, director of operations, for Golden Town Apple Products, has witnessed the same explosive growth in apple juice.

“In the last five years, juice for craft cider has gone from five to 25 per cent of the volume of our business,” says Johnson, based in Clarksburg. “Sales used to be stagnant, but no more. There is more to the juice industry than ground fruit.”

Processing customers are

looking for co-pack opportunities and unique packaging. They are also looking for year-round supplies. Plastic bottles as well as glass bottles are in demand to portray a café image.

As Schuyler reviews this dynamic landscape, he sees room for a rejuvenated apple juice industry.

“When you’re at rock bottom, it can only go up,” says Schuyler. “Right now, we have to produce a perfect apple for our market, adding lots of costs to production. If the market for processing apples grew, it would

take a lot of pressure off the grower. In Europe, cider orchards exist that rely on mechanical harvest. If Ontario develops a reliable, higher-paying juice market, then growers could take a hard look at producing juice apples using mechanical harvesters.”

“If you don’t have to grow a 100 per cent perfect apple,” Schuyler points out, “if there’s some fruit that’s dinged up with hail for example, then this scenario changes the grower’s thinking.”



Ginseng growers pursue opportunity in China and Vietnam



Remi Van De Slyke. Photos by Glenn Lowson.

It wouldn’t be surprising if Air Canada has added another flight from Toronto and Vancouver to Shanghai to accommodate the numerous trade missions to China. The federal agriculture minister Lawrence MacAulay is home from a mid-November trade mission to China while Ontario’s premier Kathleen Wynne left on November 24. Destination: Nanjing (pop. 22 million), Chongqing (pop. 18 million), Shenzhen (pop. 11 million). From December 3-6, the premier will take the mission to Vietnam (pop. 92.7 million).

China is a familiar destination to the Ontario Ginseng Growers’ Association (OGGA) whose trade missions have benefitted from federal government funding of \$420,000 over several years. Attendance at trade shows is key to meeting potential

distributors.

As Remi Van De Slyke, OGGA chair, explains, trade shows are a good start but the Canadian presence must be constant. A social media campaign on Facebook in Hong Kong has been successful in raising awareness of the top quality of Canadian-grown ginseng.

For Vietnam, the thinking goes that almost 93 million people might be interested in transitioning from Korean ginseng to Canadian ginseng. While India is not on this current trade mission, there are plans to target consumers there with a message of the nutraceutical values of Canadian ginseng in soups, teas and cosmetics.

“The federal AgriMarketing program has transformed the ginseng industry in Ontario from an unknown entity to a

global player,” says Van De Slyke. He says that more than 2.63 million kilograms are now exported, with a farmgate value of \$239 million.

Broadening markets is important for the Ontario industry that has witnessed acreage increases and falling prices in the last three years.

With more volume, prices have dropped 20 per cent in the last year.

This year’s harvest yields are variable, says Van De Slyke, with averages of 3,000 pounds per acre.

“Demand is still strong and the hope is to get trade issues with the U.S. ironed out,” says

Van De Slyke. There are domestic opportunities such as Chinese tourists visiting Vancouver, wanting to take back Canadian-quality ginseng. And in Toronto, the association had a presence at the Dragonboat Festival earlier this year.



Proven Pollinators Maximize Production.

QUAD™

Bumblebee Pollination



Ensure proper pollination of your crop with Koppert Bumblebee QUADS!

- Standardized hive quality every time.
- Certified free from pests, and disease.
- Remains active on cold, cloudy and rainy days.
- Highly effective “buzz pollination” technique.
- Guaranteed delivery when ordered within guidelines.
- Can be used in combination with honeybees.
- No beekeeping skills required.



www.abetterbee.com

Koppert Canada Limited | 40 Ironside Crescent #3, Scarborough, ON, M1X 1G4
Tel: 416-291-0040 | Toll Free: 800-567-4195 | E-mail: orders@koppert.ca



FOCUS: FOOD SAFETY IN THE VALUE CHAIN

CanadaGap commits to unannounced audits

HEATHER GALE

Over the course of 2017, growth in participation has continued at a steady and stable pace. The number of participating companies now exceeds 3,100 across Canada and the United States. The program enjoys strong support from Canada’s retail, processing and food service sectors, as well as international recognition across the range of export markets in the U.S., Latin America, Europe and Asia.

Key Achievements

2017 has been a very busy and productive year for CanadaGAP. Highlights include the following:

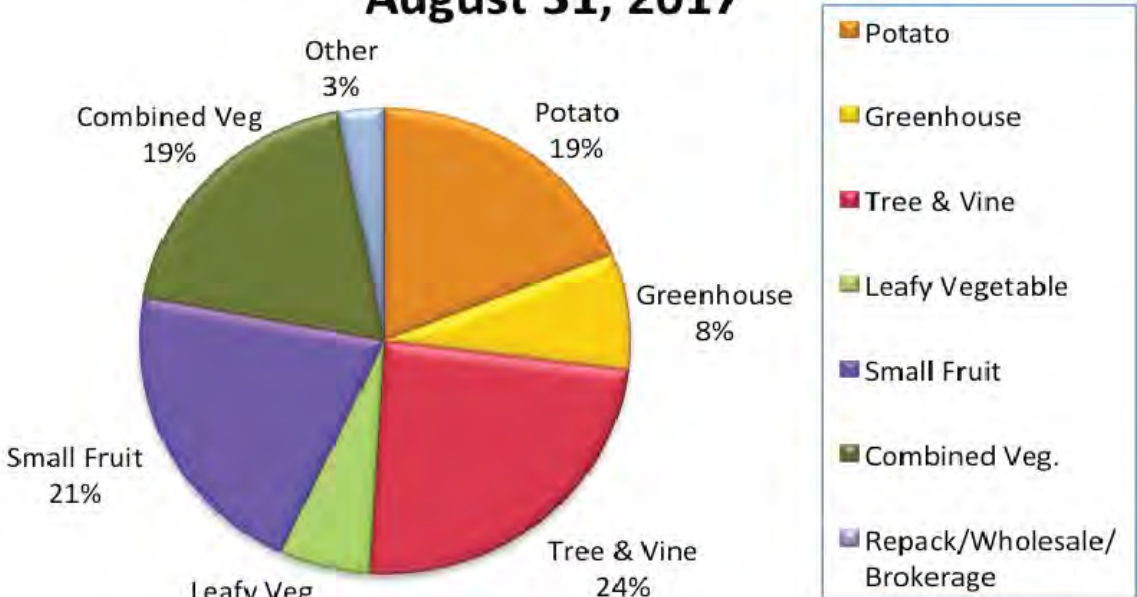
- **Government Recognition:** CanadaGAP achieved full Government Recognition in 2017 under the Canadian Government Food Safety Recognition Program. Please see the section below to read more about what this means for the program and for CanadaGAP-certified companies.
- **Re-benchmarking of the CanadaGAP program to GFSI (Global Food Safety Initiative) requirements Version 7** got underway this summer. The

process will continue into the winter of 2018. An on-site assessment at the CanadaGAP office will be part of the updated GFSI benchmarking process.

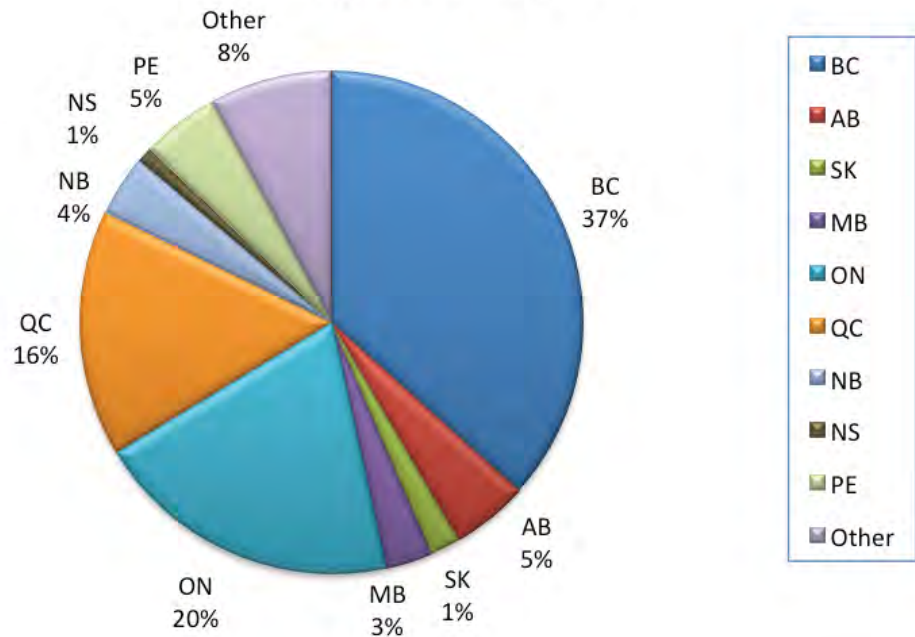
- **Unannounced Audits:** As part of new GFSI benchmarking requirements, Unannounced Audits were introduced by CanadaGAP on April 1, 2017. Under this new element of the program, 5% of CanadaGAP-certified companies are selected each year by their certification body to undergo an audit “unannounced” – i.e., with only 2 to 5 business days’ notice. Logistically, this can be challenging for the certification bodies and program participants, since it is already difficult to schedule audits for weather-dependent situations and activities like harvesting, and some crops experience seasonal fluctuations. Despite these challenges, CanadaGAP is committed to rolling out the unannounced audit program to continue to drive integrity and credibility for its certification.

- **Food Fraud:** Also within the context of GFSI re-benchmarking, CanadaGAP introduced new requirements to the 2017 standard relative to assessing and managing risks related to Food Fraud. Food Fraud is defined as economically

Proportion of CanadaGAP participants represented by crop grouping August 31, 2017



Operations Enrolled by Province August 31, 2017



The ‘AQUA Wetland System’ “A new breed of constructed wetland”

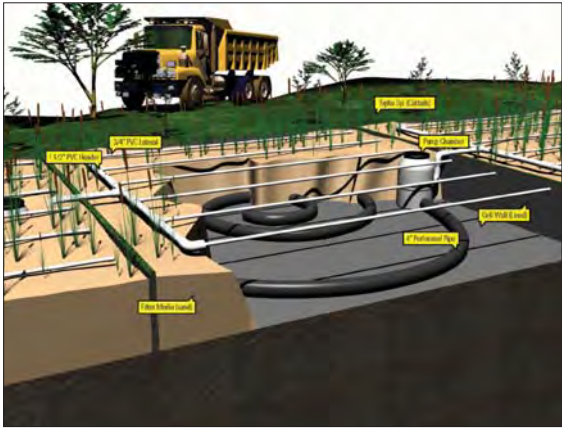
AQUA Treatment Technologies Inc. designs and installs the ‘AQUA Wetland System’ (AWS) for tertiary treatment of many types of waste water including sanitary sewage, landfill leachate, dairy farm & abattoir wastewater, greenhouse irrigation leachate water & mushroom farm leachate water (i.e. manure pile leachate) and high strength winery washwater.

The ‘AQUA Wetland System’ is operated out of doors and can achieve year-round tertiary treatment of wastewater. This sub-surface, vertical flow constructed wetland consists of sand & gravel beds planted with moisture tolerant plant species. Water is pumped vertically from cell to cell. There is no open or standing water. Treatment occurs through physical filtration & biological degradation. Plants shade & insulate the cells, cycling nutrients while preventing algae growth. There is no production of sludge.

The AWS has been approved for use by the Ontario Ministry of Environment through over 40 Environmental Compliance Approvals. Recently the Region of Niagara began approving the AWS for treatment of ‘small flow’ winery washwater i.e. < 10,000 liters per day. Other agencies who have issued approvals include Health Canada, USEPA and OMAFRA. Recent projects include:

- 1) treatment & re-use of greenhouse irrigation leach water at greenhouses in Niagara & Haldimand
- 2) treatment of winery wastewater at Greenlane Estates Winery & numerous other in Niagara
- 3) treatment of landfill leachate at sites in Pembroke, Niagara and Alabama

For additional information please contact Lloyd Rozema at 905-327-4571 or email lrozema@aqua-tt.com



motivated intentional adulteration of product that could impact consumer health. To assist with implementation and auditing of the new record-keeping requirement for Food Fraud, earlier this year CanadaGAP issued a note providing further guidance to program participants, certification bodies and auditors regarding completion of the new Form U.

- **Growth in Option D:** Interest in CanadaGAP certification for repacking, wholesaling and brokerage operations continued growing at a steady pace in 2017. Option D for repacking and wholesaling activities was successfully benchmarked by GFSI (Global Food Safety Initiative) in 2016. Seventy-nine repacking, wholesaling or brokerage operations are now CanadaGAP-certified. Customer demands for supply chain certification continue to drive uptake of Option D.

- **Spanish Manuals:** For the first time, CanadaGAP made available a translation of the Greenhouse and Fruit and Vegetable food safety manuals

in Spanish, in response to a growing number of requests.

- **FSMA Resources:** Also in response to requests from users, CanadaGAP developed and published a series of resources to help CanadaGAP-certified companies understand the impact of the U.S. Food Safety Modernization Act on their export or U.S.-based business. The resources include the following documents, which are available on the CanadaGAP website under “Food Safety Links”:
 - Information for Canadian exporters to the United States about the Foreign Supplier Verification Program (FSVP)
 - Comparison of CanadaGAP requirements with the U.S. Produce Safety Rule
 - Guidance on whether the U.S. Preventive Controls Rule applies to your business
 - Links to external sources containing useful information about implementation timeframes, exemptions and exclusions, flow charts, etc.

Continued on next page

FOCUS: FOOD SAFETY IN THE VALUE CHAIN

CanadaGap commits to unannounced audits



Year-over-Year Increase in CanadaGAP Participation

Year (Sept – Aug)	Number of producers	Increase	Growth Rate
2008-2009	537	537	100%
2009-2010	781	244	31%
2010-2011	1879	1098	58%
2011-2012	2204	202	10%
2012-2013	2440	236	9%
2013-2014	2526	86	3%
2014-2015	2927	401	14%
2015-2016	3042	115	4%
2016-2017	3127	89	3%



Board Chair and Vice-Chair

The Board Chair and Vice-Chair are elected annually. Currently serving as Chair is Jack Bates, and Hugh Bowman as Vice-Chair. The Board meets face-to-face twice annually and holds regular conference calls. The full list of directors and their biographies are posted at: <http://www.canadagap.ca/about-us/governance/>

Management Review

An annual management review of the program is held each June with senior management and representatives from the Board. The management review encompasses a review of:

- requests for modifications to the program
- performance of CanadaGAP certification bodies
- complaints and their handling

- internal audit results
- auditor training undertaken and its outcomes
- provision of resources
- policies related to conflict of interest and confidentiality, among others.

Continued from last page

• **Sustainability:** Last year, CanadaGAP entered into a partnership with the North American Potato Sustainability Initiative (PSI) to offer verification audits for potato growers.

The first Potato Sustainability audits occurred in late 2016 and early 2017 in conjunction with the processing potato shipping season. Nine CanadaGAP auditors have been cross-trained on the PSI requirements.

Program Participation

Over 3,100 producers are now participating in CanadaGAP. The table below shows year-over-year growth in the number of producers participating in the program. The growth rates below are net of departures from the program, which may be due to changes in a farming operation, retirement, voluntary termination of certification, etc.

Participation Trends

The following participation trends are significant for 2017:

- The rate of growth in CanadaGAP participation has slowed over the past year, to 3%. There were a significant number of retirements and farm sales in 2016-17, as growers

aged out of their operations. However, the growth in enrolments continues to offset those leaving the program.

- For the first time, the fastest growing participation rate across the provinces was in Alberta, thanks to the entry of several new haskap growers. Ontario has the next greatest increase in enrolments, made up mostly of potato growers enrolling in Option C, and repacking and wholesaling operations. Modest increases were also seen in segments of the Quebec and British Columbia industries, as packers and processors increasingly seek to source their supply of product from certified producers.
- Growth in Option D enrolments for repacking, wholesaling, and brokerage operations continues to increase, up nearly 20% over last year.
- U.S. grower participation in the program also continues to rise. CanadaGAP is attracting American farmers who are organizing in groups to pursue food safety certification.
- BC maintains the highest enrolment levels overall, representing 37% of all CanadaGAP-certified companies. This number has dropped from its peak of 42% of

- all participating producers in 2016.
- Participation in the four-year audit cycle has leveled off, with very little change in the number of Option A1 and A2 participants since last year. Approximately 25% of CanadaGAP-certified farms participate in these certification options.
 - Enrolments in Option C (annual audit) have exceeded half of all program participants for the first time, representing 52% of all certified companies this year.
 - Group certifications have seen a modest decline, standing at 21% of all enrolments, which is down from 24% last year.
 - For the purposes of analyzing participation trends, enrolment figures are broken down by five crop groupings:
 - o Tree and Vine Fruit
 - o Field Vegetables
 - o Potatoes
 - o Small Fruit
 - o Greenhouse
- What's Ahead for 2018?**
- GFSI Re-benchmarking to Version 7
 - Implementation of GFSI Auditor Competency program
 - Coming into force of the Safe Food for Canadians Regulations

- Updates to 2018 Manuals – publication in January, revisions effective for audits starting April 1
 - Continued promotion of CanadaGAP inside and outside of Canada
- Heather Gale is executive director, CanadaGAP Program, CanAgPlus*

Grower Pesticide Safety Course & Pesticide Safety for Farmer Assistants

✓

Farmers must be certified to buy and use Class 2 or 3 pesticides on farms.

✓

Farm workers who assist with pesticide application under the supervision of a Certified Farmer must be trained.

For a list of opportunities, visit www.opep.ca

Sign up online or call us at 1-800-652-8573 to register for the Ontario Pesticide Education Program

UNIVERSITY of GUELPH RIDGETOWN CAMPUS

Ontario

FARM & FOOD Care ONTARIO

FOCUS: FOOD SAFETY IN THE VALUE CHAIN



Example of the candied apples offered by Moyer Apple Products Ltd., Lincoln, Ontario.

Made-in-Canada technology keeps Listeria at bay in candied apples



L-R: Paul Moyer, Dr. Keith Warriner, Amber Gulbis

“
Now it's the food safety scientists who are the first to determine who to buy from. Fresh produce is operating in different times now.

~ PAUL MOYER

KAREN DAVIDSON

In the ensuing years, the company's turn-around is credited to three factors. "We know apples," says Moyer. "None of our competitors have an agricultural background. Our apples are the key ingredient in addition to the caramel coating." Secondly, the company earned SQF Level 2 status accredited by the Global Food Safety Initiative (GFSI) in 2014. The timing was serendipitous as they told their story in countless face-to-face meetings with clients. Thirdly, their manufacturing partner Court Holdings invested in a new protocol and equipment developed with University of Guelph food safety researcher Dr. Keith Warriner and Kayla Murray.

The new protocol is to combine a forced-air ozone reactor with a sequential advanced oxidative process treatment. The treatment effectively decontaminates apples as a more effective approach than simply washing. The research describing the treatments is scheduled to be published in the *Journal of Food Protection*.

"This has been an expensive venture," says Moyer. "The proof of concept was at the University of Guelph, but we had to make this into a commercial scale process."

As Amber Gulbis, Moyer Apple Products points out, limiting any contact with water is a good step because water near caramel or chocolate causes the coating to seize. The story has gained traction.

"We have visited the food safety teams of every customer," says Gulbis. "We're happy that we've managed to keep and gain market share due to implementing the new technology."

In these three years, and as other food safety stories have emerged, food companies and retailers are on the front lines of ensuring food safety.

"In the past, buyers told the food safety people what they wanted," remembers Moyer. "Now it's the food safety scientists who are the first to determine who to buy from. Fresh produce is operating in different times now."

In a curious twist to this apple story, an American calamity has led to a Canadian invention. Moreover, it illustrated that thinking outside the box can speed up recovery of a sector damaged by foodborne illness outbreaks.

Bad news can affect entire industries. In October 2014, that's what happened when *Listeria*-contaminated caramel apples in the U.S. broadsided an innocent bystander in Canada. Moyer Apple Products near Lincoln, Ontario had a clear bill of health but had to watch all candied apples pulled from American retailer shelves in the run-up to Christmas.

"How they reacted is a good case study," says Dr. Keith Warriner, associate professor, Department of Food Science, University of Guelph. "They had no connection with the crisis in the U.S., but they did not let the tide go by in hopes that the business situation would return to normal. Instead they were proactive and developed a new system to enhance food safety in their product."

Business for Moyer Apple Products was still stable for Canadian retailers such as Loblaw, Sobeys and Costco, however it was a staggering blow to lose sales from Maine to Miami. Sales were off by 50 per cent due to drop in demand once candy apples produced in California were identified as the source of the *Listeria* outbreak. Retailers and consumers viewed all candy apples in the same light despite only one company being implicated.

"After the recall in October 2014, we were the only producer to have product," says Paul Moyer, Moyer Apple Products Inc. "We ship a lot of product to the U.S. and everything was taken off the shelves before Christmas. We had a hard time convincing our customers to carry product the following year for Valentine's Day, Easter and Mother's Day."



BRINGING FOOD SAFETY OUT OF THE BINDER AND INTO THE FIELD

CanadaGAP Food Safety Forms are now Fully Interactive and On-Line

GAP APP FEATURES INCLUDE:

- Electronic
- All forms in one space
- Forms are intuitive and fully searchable
- Forms are updated automatically when CanadaGAP publishes new forms (annually)
- No more searching for documents at audit time
- Access forms from anywhere on your operation
- Easy access via tablet
- More inclusive - provide multiple user access to any form as needed

Visit us at: www.gapapp.ca

FOCUS: FOOD SAFETY IN THE VALUE CHAIN

Hyperspectral imaging shines a light on foreign objects and reduces food waste

KAREN DAVIDSON

Leafy greens are tender to eat but tough to handle. The perennial problem is about to get easier with hyperspectral imaging that will help processing plants extract foreign material and save hundreds of thousands of dollars per year in food waste. In the next five years, processors expect to share more precise information with growers on which genetics and field practices lead to the tastiest greens.

That’s a gargantuan promise explained by Doug Alexander, director of engineering for Ippolito Produce Inc, Burlington, Ontario. The company that specializes in a range of vegetables and ships all over North America has a big appetite to innovate.

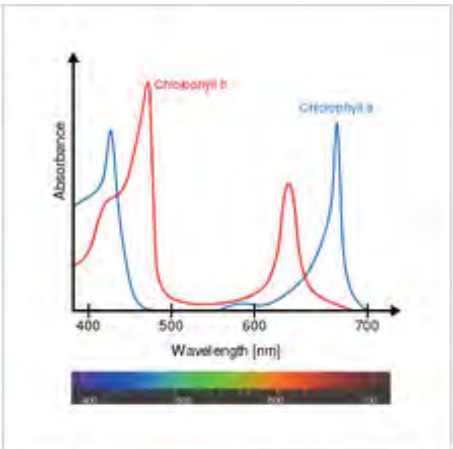
“Leafy greens such as spinach, kale and arugula are hard to inspect,” says Alexander. “They all have low densities compared to their weight. Imagine your front lawn with plant material blowing all over.”

The variability of leafy greens is in colour, size and species. Baby spinach, for example, is the size of a loonie whereas curly spinach can be the size of your palm.

A leopard frog in your spinach? Easily detected and rejected. But the optical sorters must distinguish between various shades of green, slight gradations similar to a paint chip sample. Even with today’s technology, optical sorters don’t spot foreign material very well. What happens is that the machines over-inspect, discarding a lot of leaves that are perfectly edible.

“In the studies in our plant, we discovered that 93 per cent of the discards were good,” says Alexander. “That was a huge amount of food waste.”

Global suppliers of optical sorters are challenged to meet Ippolito’s more exacting needs because they are in the business of increasing processing speed in industrial settings. Alexander was determined to find a made-in-Canada solution. Lucky for him, about an hour’s drive away in Waterloo is a world-class company called P&P Optica. Through a fortunate confluence of meetings with P&P Optica at Conestoga College Institute of Food Processing Technology,



The absorption spectrum of both the chlorophyll a and the chlorophyll b pigments. The use of both together enhances the size of the absorption of light for producing energy.

Alexander started a pilot project two years ago.

P&P Optica has a 20-year track record enabling world-class life sciences and environmental research. In 2014, its researchers pivoted to agriculture. With federal funding from Growing Forward 2, the company patented a hyperspectral imaging technology that sees the chemistry of food.

“This is a process that measures absorbed and reflected light to analyze the chemical makeup of a specific food product,” explains Kevin Turnbull, vice president of sales, P&P Optica.

Simply put, PPO Smart Imaging shines light across the electromagnetic spectrum and identifies chemical differences that identify foreign materials such as twigs, metal or paper. But more than that, data collected at super speeds, indicate the quality of leafy material.

This is where physics and chemistry meet. Remember that plants are made of chlorophyll to convert sunlight into energy. In fact, there are two types of chlorophyll – A and B – that absorb light energy. The engineers at P&P Optica have harnessed that knowledge with their hyperspectral imaging, developing algorithms that can distinguish between chlorophyll A and B. In fact, they can look at other health-related chemicals such as flavonoids.

Beyond the benefits of identifying foreign objects and reducing food waste, this technology moves the food chain to an “aha” moment. Once software experts can compare chemical signals – a plant’s respiration rate for example – then that information can be monetized into identifying plants that will have longer



Hyperspectral imaging, like other spectral imaging, collects and processes information from across the electromagnetic spectrum. The goal of hyperspectral imaging is to obtain the spectrum for each pixel in the image of a scene, with the purpose of finding objects, identifying materials, or detecting processes.

shelf life or better taste.

The next step will be to create a database of plant signals whereby Ippolito field representatives will be able to communicate what spinach varieties and perhaps what field practices result in the tastiest eating experience.

As Alexander explains,

hyperspectral imaging will become a management tool. Beyond grading and sorting produce at higher accuracy, the processor plans to optimize its knowledge with contracted growers. In the next five years, perhaps drones will be able to fly over fields and photograph the chemistry of the field.

“This is Star Trek technology,” Alexander concludes.

Editor’s note: To view a video on hyperspectral imaging, go to: <http://biotalk.ca/pp-optical/>



CROPTRACKER

SOFTWARE, HARDWARE & CONSULTING

- ✓ Mobile Spray & Harvest Records
- ✓ Automatic, Instant Traceability
- ✓ Keep Your Team Up to Date
- ✓ GAP Food & Worker Safety
- ✓ Plan. Execute. Report.

Register for FREE Training

1 800 903 1492 | www.croptracker.com



FOCUS: FOOD SAFETY IN THE VALUE CHAIN

Building closer relationships with frontline researchers on food safety

KAREN DAVIDSON

With food safety at the forefront of issues in the value chain, the Canadian Produce Marketing Association (CPMA) created a full-time position earlier this year. Jeff Hall, food safety specialist, has been attending conferences and committees of the following: Global Food Safety Initiative, International Association of Food Protection, Canadian Food Research Institute, Canadian Research Institute in Food Safety, Global Food Safety Initiative, Centre for Produce Safety, Fresh Produce Association of the Americas, International Federation of Produce Standards.

“The CPMA board has invested the necessary resources to support domestic and global food safety efforts in a manner that does not duplicate existing efforts but supports and enables our members to produce and sell safe and nutritious products in



Jeff Hall, CPMA food safety specialist

Canada and around the world,” says Ron Lemaire CPMA president.

“The goal is to ensure CPMA’s members have access to the latest scientific, regulatory and educational information so they can make sound, science-based food safety decisions for their businesses,” says Hall.

Part of the CPMA strategy is to create a member-supported food safety fund that will be earmarked for research and



Photo by Glenn Lowson

education in a Canadian context.

“We will be working with academia, researchers, industry and government to leverage the dollars through various collaborations,” says Hall. “We are hoping to have the first project initiated early in 2018. We are encouraging all of our members, whether based in Canada or involved in cross-border trade, to support this exciting opportunity.”

In support of the member-

ship, CPMA will be running a number of Food Safety Forums across Canada, and in the U.S., in advance of the new Safe Food for Canadians Regulations (SFCR) and the U.S. Food Safety Modernization Act (FSMA). These will be day-long seminars with participation from government and industry to help prepare members for the regulatory changes which are coming. Expect a kick-off announcement at the Nova Scotia Horticultural Congress in

January 2018 with stops to follow January through March in Montreal, Toronto, Calgary, Vancouver, Salinas and possibly the U.S. northwest.

Once the dates are finalized, expect the agenda to focus on licensing requirements, preventative controls and traceability. Look for future communications about *Listeria monocytogenes* and whole genome sequencing. For updates, go to www.cpma.ca.

Paper labels allow traceability, sustainably

Small things count in traceability of fresh produce. Those ubiquitous labels with product lookup (PLU) codes are what keep the industry moving with confidence.

Applying computer-generated labels is no small task with dozens of individual commodities and millions of individual pieces. Since 2001, Accu-Label International Inc has been meeting the needs of an industry hungry for the means to track produce cost effectively.

From a food safety perspective, the labels are made of paper, not plastic, and the code is printed with water-based inks. The print-and-apply system has been the most successful solution in operation for almost a decade. What’s new is the ability to apply lot codes which can be most helpful in the case of food recall. Let’s say a major retailer needs to recall potatoes, but those potatoes were supplied by a dozen farmers. A lot code can identify the grower and packer.

It costs fractions of a penny

to apply lot codes to an entire carton of fresh produce.

“We’re more than just a labeling company,” says Joe Sleiman, president of Accu-Label Inc. near Windsor, Ontario. A sister company called Ag-Tronic Control Systems provides the equipment needed for laser-fast application. A new tray labeler was launched at the recent Produce Marketing Association Fresh Summit in New Orleans.

“With Ag-Tronic Control Systems spear-heading innovation and product development, we are able to customize labelling solutions to suit the industry’s requirements. We realize the fruit and vegetable PLU labelling industry is not a one-size fits all. Our customers range from mom & pop repackers to some of the largest fruit and vegetable growers in North America. Our latest product was developed in response to the trends we’re seeing overseas and what is starting to be mandated by the retailer,” Sleiman said.

The new FLEX-TL is a



Terri Michienzi, designer of the FLEX-TL and Joe Sleiman.

fully-modular tray labeler designed to suit the customer's unique and individual requirements.

“We’re seeing customers settle for low-quality products based on price point alone,” said Sleiman. “Sadly, they end up paying more in the long term to rectify low label percentages, or pay additional service costs for unreliable equipment. The

new FLEX-TL will allow the customer to choose his or her options to build a system with the features they absolutely need and add on the features they want, for a reasonable price, while offering the customer the peace of mind of having the reputable ORB-it brand.”

Accu-Label patented a print-and-apply system that is

upgraded constantly with new features. The latest is a print vision verification that validates the quality of the printed information before the label is applied to the product. This solution allows the customer to control the quality of the product upstream before reaching the retailer.



@growernews



@thegrowernews



www.thegrower.org

CYBER SECURITY

Protection required against cyber bandits

KAREN DAVIDSON

Not so long ago, western movies had a stock phrase for cowboys committing extortion: Stick ‘em up. In today’s lexicon, the new demand is from invisible raiders: Show me your bitcoin.

Today’s computer hackers have an equal opportunity outlook. Whether the victim is male or female, big or small, it’s really not about high-profile names per se.

Cyber attacks on companies such as Target, Sony and Canadian Tire have generated national headlines, raising awareness of the growing threat of cyber crime. Surprisingly, despite these significant security breaches, 85 per cent of small business owners believe their company is safe from hackers, viruses, malware and/or data breaches. This disconnect is largely due to the widespread, albeit mistaken, belief that small businesses are unlikely targets for cyber attacks. In reality, data thieves are simply looking for the path of least resistance. As more and more large companies strengthen their data security, small businesses are becoming increasingly attractive targets – and the results are often devastating for small business owners.

“Most companies think they’ve been a specific target,” explains Glenda Johnston, commercial marketing director for Dalton Timmis Insurance based in Ancaster, Ontario. “But cyber security attacks are not personal. The hackers are simply running through tons of data looking for a weakness in your network.”

A recent case was San Miguel, an Argentine citrus company, which lost \$15US million due to the hacking that hit shipping giant Maersk. The breach in Maersk’s obligations resulted in merchandise losses of up to 70 days in lost containers and sales cancellations.

Think this situation can’t happen to you? Johnston cites a recent Ontario-based manufacturer which received malware embedded in an invoice. The company controller opened the invoice and within 20 minutes, 120,000 files were encrypted with an unknown password.

Before your business is crippled, call your insurance broker. Many of the mainstream insurers include some basic expense mitigation coverage in their policies. The cost is usually about \$100 for the year, but be aware that you get what you pay for. If your company needs more robust insurance

and you’re looking to cover extortion costs, stand alone Cyber Security/Privacy Breach coverage is the answer. Premiums start at about \$1,500 per year. As a client, your cost of insurance will be based on the merits of exposure.

Insurance coverage extensions can include:

- **Network extortion threat** – coverage for expenses incurred to respond to an extortion threat

- **Breach event services and expenses** – coverage for a variety of costs incurred such as breach management expenses, breach notification expenses, credit monitoring expenses and forensic expenses

- **Corporate brand protection/crisis management expenses** – coverage to provide public relations services to repair reputational damage

- **Business interruption** – provides reimbursement for loss of income while restoring operations as a result of a security breach

- **Data protection and system restoration** – coverage for expenses incurred to restore systems as a result of a security breach

- **Reward expenses** – coverage for expenses that lead to the arrest and conviction of a person responsible for attack, extortion threat or unauthorized access

The level of coverage for your business is based on your specific operations and range of exposure. It’s important to work with a broker who can identify your areas of risk so a policy can be tailored to fit your unique situation.

If your business is hit by ransomware, take the following steps:

- Don’t do anything further on your computer systems. Consult your IT department or supplier.

- Immediately contact the Canadian Cyber Incident Response Centre to report the incident. Staff can assist your business to mitigate further damage

- Report the incident to the Canadian Anti-Fraud Centre.

- Contact your insurance broker to discuss next steps.

Every company, every employer is required to safeguard the data of its employees and clients. That means the names and addresses of employees, banking information and social insurance numbers. If this



Cyber security attacks are not personal. The hackers are simply running through tons of data looking for a weakness in your network.

~ GLENDA JOHNSTON

information is extracted, even by fraudulent means, the company is still responsible and may be subject to fines by the privacy commissioner of Ontario.

“If you collect it, you’re responsible,” says Johnston. “It’s not enough to say a third-party is responsible for payroll or that your information is stored in the cloud.”

Her advice is to ensure a good backup system is in place. Backing up data every week may not be enough. Every day may be necessary if you

calculate the time it would take to rebuild the day’s entries. Storing backup at off-site, secure locations is a good idea. Don’t think a filing cabinet in your office will suffice. A filing cabinet won’t survive in the case of fire. And finally, be sure to test your backup system.

“In the last couple years, cyber security has become more top of mind for Canadian business,” says Johnston. In 2015, Canadians were affected by 1,600 ransomware attacks per day. In a year, those numbers doubled. Experts recommend

against paying the ransom.

When looking for insurance against malicious ransomware, see what first responders are listed on the policy. More insurance companies are contracting experts to mitigate damage in the first minutes or hours of hacking.

As businesses plan for 2018, it’s a good time to review insurance policies. Forward thinking and planning could prevent an unwanted and costly cyber attack on your business.



STOKES
SEEDS

Seminis
grow forward

Stokes Seeds Trial Evaluation Researching the best for our customers since 1881.



Affirmed
56 day, straight medium green pods, high yield potential and resistances.

Henry Zomer
ON, MB, SK
905-308-4396



Pocono
110 day, extra large uniform round bulb with dark skin and very small necks.

Leah Erickson
AB, BC
604-957-2359



Playmaker (w/ X10R®)
First commercial variety with resistance to ALL races of BLS and Phytophthora.

Bridget Visser
ON, MB
905-715-8595

Laura Caralampides
QC
514-984-0662

Rob Hovius
ON, PEI, NB
519-580-3231



Catskill
105 day, large medium dark brown storage onion with good skin retention.

Paul Banks
ON, NS
905-688-4300

Marc André Laberge
QC
514-984-4589

— Quality Seed Since 1881 —

T: 1-800-263-7233 | F: 1-800-272-5560 | www.StokeSeeds.com | Box 10 Thorold ON L2V 5E9



Tracking the march of leek moth in Ontario

TRAVIS CRANMER &
HANNAH FRASER

Leek moth (*Acrolepiopsis assectella*) is an invasive pest of European and Asian origin. The first North American detection occurred near the National Capital Region (Ottawa) in 1993. Since then, the leek moth has spread west through Ontario, east towards the maritime region (Québec, New Brunswick, Prince Edward Island), and south into the United States (New York and Vermont). Long-range dispersal may occur through wind currents and by movement of infested plant material. Most injury in Ontario has occurred in leek and garlic, generally on small, diversified farms.

The leek moth is an Allium specialist, attacking both wild and cultivated species. When left unmanaged, larvae can cause significant damage to garlic, leeks, onions (dry bulb, green), shallots and chives. Leaves, stems, flower stalks, scapes, and bulbs may all be affected. Feeding injury varies depending on leaf architecture of the crop. On flat-leaved alliums such as garlic and leek, larvae mine through folded leaves, creating pinholes and longitudinal grooves. In onions, shallots and chives, larvae feed inside the hollow leaves, creating a “windowpaning” effect. Damage to the leaf causes a reduction in plant growth and creates entry points for fungi or bacteria. In garlic, the leek moth larvae have the potential to bore into the scapes and cloves. Infested bulbs may have decreased storage life. Damage to leeks and green onion render these crops unmarketable. Leek is at high risk for injury because it is a preference host plant and because it is harvested later in the season, when leek moth populations are at their highest. Larvae are slender,

yellowish-green in colour, and up to 14 mm at maturity. They produce copious amounts of pale frass as they feed, which becomes evident when leaves are pulled apart. Mature larvae exit the leaves to pupate, either on the outside of the plant or on other nearby plants. Pupae are enclosed in a mesh-like-cocoon, very similar to that of the diamond-back moth. The adult moth is small (5-7 mm), reddish brown, and with a white triangle-shaped spot that is visible when the wings are at rest.

There are multiple generations of leek moth, the number of which varies by region. In eastern Ontario, where most research has been conducted, there are usually two to three generations per year; we expect up to four in the southwest parts of the province. Adult moths overwinter in protected areas (windrows, buildings and plant debris), with activity in the spring occurring in mid-April to mid-May. Once mated, overwintering females begin to lay eggs when night temperatures are above 10°C. Eggs hatch several days later, and neonate larvae move quickly into the plant, where they are protected from pesticides and most natural enemies. This leaves a very small window of opportunity for targeting insecticide applications.

Researchers at Agriculture and Agri-Food Canada (AAFC, Dr. Peter Mason’s lab) have developed decision support tools to facilitate management of leek moth, including optimizing the use of pheromone traps and refinement of a degree-day model to track development and predict generation time for leek moth in eastern Canada. At a threshold of 7 °C, leek moth requires approximately 445 day-degrees to develop from egg to adult ((Max Temp + Min Temp)/2) – 7°C). Accumulation of degree

days starts one week following peak flight of male moths captured in pheromone traps, and is reset to zero for each generation. Generation times shorten in warmer weather, and can be as little as three to four weeks. Precise timing is required for successful management strategies such as application of insecticides (applied around peak egg-laying) and / or the use of exclusion barriers (in place prior to flight of generation).

The timing of an insecticide application is often most effective seven days after the peak pheromone trap capture. If flight activity in a generation is extended, additional sprays may be required (following label recommendations). Pheromone traps must be set up in late winter (early April), before the expected overwintering adults become active. Place at least two traps per field, near perimeter, as this is where the highest leek moth numbers are usually observed. Pest pressure and crop risk increase as the season progresses. While management early in the season may help to reduce subsequent generations, sporadic spring activity may make timing difficult. A number of products are registered for leek moth suppression however only Matador is registered for control on garlic, leek, dry bulb onion, green onion and shallot. Floating row covers are often the most effective pest management strategy, but they are not generally implemented over large acreages, likely due to feasibility concerns. As mentioned previously, these must be applied prior to adult activity in each generation.

If possible, observe a three-year crop rotation and avoid planting near infested areas from the previous season. In garlic at scape removal, collect and destroy scapes that show any sign of leek moth damage. Burying and/or destroying plant debris at the end of the season



Figure 1. Leek moth larvae. Photo by of A.M. Brauner, AAFC



Figure 2. Garlic bulb damage with leek moth frass. Photo by of A.M. Brauner, AAFC



Figure 3. Garlic scape with leek moth exit hole and frass – Hannah Fraser, OMAFRA

will also reduce pupae and larvae populations that remain in the field after harvest.

Potential biological control agents have been screened for effectiveness as a natural enemy against leek moth in several parts of the world. *Diadromus pulchellus*, a parasitic wasp naturally found in Europe, was released in 2010 within the Ottawa Valley following extensive screening for non-target impacts (AAFC and CABI Switzerland). Early research shows that *D. pulchellus* overwinters in Ontario, but its impact in reducing leek moth populations needs further evaluation.

We are conducting a survey in 2018 to determine the current range of leek moth in Ontario. If you observe leek moth damage please contact Travis Cranmer at travis.cranmer@ontario.ca or (519) 826-4963. For more information and visuals of leek moth damage and life stages, see OMAFRA factsheet 08-009, Leek Moth – A Pest of Allium Crops. Follow ONVegetables.com for up to date information about leek moth and other vegetable news.

Travis Cranmer is vegetable crops specialist and Hannah Fraser is entomologist for horticulture, OMAFRA.

OUR EXPERTS ARE HERE TO HELP!



Paul Banks
(ON/NS)
905-688-4300



Laura Caralampides (QC)
514-984-0662



Leah Erickson
(BC/AB)
604-957-2359



Rob Hovius
(ON/PEI/NB)
519-580-3231



Marc André Laberge (QC)
514-984-4589



Bridget Visser
(ON/MB)
905-715-8595



Henry Zomer
(ON/MB/SK)
905-308-4396

STOKES®

SEEDS

~ Quality Seed Since 1881 ~

T: 1-800-263-7233
F: 1-800-272-5560
www.StokeSeeds.com

ONTARIO VEGETABLE NEWS

A few of my favourite things

ELAINE RODDY

As a vegetable crops specialist with a few summers under my belt, I have seen more than my fair share of problem fields. Typically the summer months will find me walking fields, counting insects, observing lesions and various stages of decay, and diagnosing any range of different pest, soil, environment or nutritional issues. Many growers joke that they only call me when they have a problem, which is actually quite true. But, I have also had the privilege over the years to have unbelievable access to the back roads of Ontario. I always feel a sense of home-grown pride when I see a familiar name on the totes at the grocery store. Ontario’s vegetable growers are an innovative, dynamic, highly competitive group of people. In addition to the thousands of pest and disease pictures I have collected through the years, I often stop to take pictures that celebrate the beauty of growing a crop. Here are a few of my favourites.

Elaine Roddy is vegetable crops specialist for OMAFRA, based in Ridgetown, Ontario.



Figure 3. Over the past two summers I have seen many a sunrise over a pumpkin patch. We have been surveying Squash Bee populations across SW Ontario. Not only do we beat the heat, we also get to observe this fascinating insect hard at work, long before the better-known honey bees wake up.



Figure 4. The Hoary Squash Bee. Note her extremely hairy back legs. They are perfectly adapted to collect the sticky pumpkin/squash pollen which she will then form into a pollen ball to feed her larvae.



Figure 1. Once, while visiting an asparagus farm in Michigan, the grower asked me if the Ontario growers practise no-till. Before I could answer, their asparagus specialist, Norm Myers, interrupted “practise it, Ontario invented it!”



Figure 2. Each year, I get more and more inquiries about no-till pumpkins. Like any no-till system, it requires tweaks and adjustments to make it work, but the advantages include better weed control, and a higher quality, cleaner product at harvest. Not to mention improved soil quality.



Figure 5. It never ceases to amaze me that it all starts with one seed.



Figure 6. When I first started scouting sweet corn, we relied upon broad-spectrum insecticides to manage corn borer and earworm. I rarely ever came across spiders or beneficial insects in corn fields. Today, due to more targeted chemistries, I regularly find a huge variety of “good guys” in the field, including this tunnel spider.

Soil health

Ontario’s Draft Agricultural Soil Health and Conservation Strategy builds on the extensive soil health efforts of agricultural organizations and OMAFRA. Your input will help guide the development of a final Soil Health and Conservation Strategy for Ontario which will be released in spring 2018.

How to participate

Access the strategy at: ontario.ca/soil
Access the draft survey and comment by December 31st, 2017. You may submit comments a number of ways:
• Submit your comment through the Environmental Bill of Rights Registry at Ontario.ca/ebrr registry number 013-1373
• Fill out this feedback form found at ontario.ca/soil.
• Email: soilhealth@ontario.ca
• Fax: 519-826-3492
• Mail: Agricultural Soil Health and Conservation Strategy
Ministry of Agriculture, Food and Rural Affairs
1 Stone Road West, 2nd floor
Guelph, ON N1G 4Y2

Open Houses

Three open houses were held in November in St. Isidore, Woodstock and Chatham. But you can still participate at one of the public open houses being held in December. Pre-registration is not required at these drop-in events. Participating in an open house will give you the opportunity to talk with OMAFRA soil staff, ask questions and provide input:

- 1. December 14, Codrington Community Centre, 2992 Rd 30, Codrington, ON, K0K 1R0(3-6pm)
- 2. December 15, Flesherton KinPlex, 2 Highland Dr., Flesherton N0C 1E0 (3:15-5:30 pm)

MONEY DOES GROW ON TREES... HAZELNUT TREES!



- trees produce for 60-100 years
- Ontario has ideal growing conditions
- mechanized harvest
- highly profitable crop
- increasing demand for sales within Ontario and for export
- contracts arranged for growers in zone 6b/7a

Hazelnuts are a profitable crop with low inputs and light management . . . call us today to learn more.



Grimo Nut Nursery provides high quality nut trees that will get your orchard growing strong. Honest, hardworking family business for 45 years.



GrimoNut Nursery

Ernie and Linda
905-934-6887
Nut.trees@grimonut.com
www.Grimonut.com

FOREIGN MISSIONS

The pace of trade with China quickens

When Agriculture and Agri-Food Minister Lawrence MacAulay opened the Royal Agricultural Winter Fair, he was swarmed with Toronto’s urban media. The surprise? All of their questions were about the upcoming trade mission to China.

MacAulay ended the trade mission November 21, with a multitude of new deals in Shanghai and Guangzhou. These efforts will help Canada reach its goals of doubling bilateral trade with China and growing global agri-food exports to \$75 billion by 2025. Shanghai and Guangzhou are key economic centres, presenting an opportunity to increase sales of food products.

Highlights were:

- Vancouver’s Sinova Foods International and its partner, an importer of Canadian wine and icewine, China’s Legend Wine Group. Industry expects the deal will boost sales to China by \$15 million over three years.
- The Wild Blueberry Association of North America and China’s Jin Jiang

International signed a collaborative agreement to strengthen product development, market promotion and health research.

- The Government of Canada signed a new arrangement and memorandum of understanding with China, including:
 - the 2017-18 Cooperative Arrangement between the Canadian Food Inspection Agency (CFIA) and China’s counterparts, the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) to set a path for continued stable trade of agricultural products, including canola and expanded meat access.
- Renewed the MoU on Biotechnology between the CFIA and China’s Ministry of Agriculture.
- The marquee event during Minister MacAulay’s visit to Shanghai was Food and Hospitality China, the largest food trade show in China specifically targeting international food and beverage suppliers for the Chinese market. He received a tour of the Canada



Federal ag minister Lawrence MacAulay was peppered with questions about the trade mission to China at the opening of the Royal Agricultural Winter Fair in Toronto.

Pavilion, meeting many of the 82 Canadian exhibitors in attendance. In terms of sales, industry representatives reported some \$10.3 million in on-site sales, and \$42.7 million in anticipated sales over the next year. While supermarkets remain the main distribution channels for packaged food in China, e-commerce sites are increasingly taking over, thanks to a growing middle class and more smart-phone and Internet users. Seizing on this trend while in Guangzhou, the minister met with VIP.COM, one of the country’s top-three developers of e-commerce platforms, and

showcased the safe, high-quality Canadian food products available on Chinese e-commerce platforms. The Minister participated in cooking demonstrations for Chinese stakeholders organized by Canada Beef Inc., the Canola Council of Canada, and the Atlantic Canada Opportunities Agency (ACOA), with the latter project supported by the governments of Canada, Nova Scotia, New Brunswick, Prince Edward Island, and Newfoundland and Labrador as part of pan-Atlantic efforts to grow trade and investment opportunities for Atlantic

businesses through the Atlantic Growth Strategy. In Shanghai, Minister MacAulay also helped launch the promotion of “Canada Food Week” at well-known grocery retail chain CitySuper to highlight Canadian food products. China has become the world’s largest e-commerce market with online retail sales exceeding C\$980 billion in 2016 – 39.2 percent of the world total – and is expected to reach C\$1.3 trillion by 2019.

Source: Agriculture and Agri-Food Canada Nov 20, 2017 news release.

Fall Into Savings

Receive 5% off Van Wamel, ShurFarm and Fruit-Tec equipment ordered before December 15, 2017!



FAMA Hedgers



Orsi Platforms



Chariot Platform

Make a down payment on FAMA, Chariot, Orsi, or H.S.S. equipment before December 15, 2017 and don't pay remainder till July 25th, 2018!

Free upgrades available on select items. Call for details.



Fruit-Tec Thinners



Perfect Mowers



SHur Farms Frost Protection



Quality, Efficiency, Safety

GREEFA PERFECT ORSIGROUP FAMA FRUIT TEC PULSE INSTRUMENTS BARTLETT SINCLAIR H.S.S. SHUR FARM

Visit provideag.ca for more information, including deals on used and clearance equipment!

PROVIDE AGRO

A BARTLETT COMPANY ESTABLISHED 1912

Call your local representative to book a free demo, some restrictions apply.

905.563.8261 | 1.800.263.1287 | info@provideag.ca | www.provideag.ca | Beamsville, ON, Canada

MARKETPLACE

advertising@thegrower.org

866-898-8488 x 221

SEED AND ROOTSTOCK

KEDDY

Certified Strawberry Plants & Raspberry Canes

- All popular varieties available
- Grown under the Nova Scotia Certification program
- Plants shipped across North America.

Contact us for a **FREE** brochure

C.O. Keddy Nursery Inc

982 Charles Keddy RD, Lakeville, NS, Canada B4N 3V7

Ph: (902) 678-4497 Fax: (902) 678-0067

Email: keddynursery@xcountry.tv



Providing quality apple trees for 40 years.

- Bench graft
- 9 month bench
- KNIP tree
- Top grafting existing orchard

Brian Van Brenk

31760 Erin Line

Fingal ON, Canada

NOL 1K0

519-902-6353

www.vanbrenk.ca

brian@vanbrenk.ca



QUALITY FRUIT TREES

- APPLE on M9, B9 and M26
- Peach on Bailey
- PEAR on Quince

ORDER NOW FOR BEST SELECTION

WARWICK

ORCHARDS & NURSERY LTD

7056 Egremont Rd. R.R. #8

Watford, Ontario

NOM 2S0

warwickorchards@brktel.on.ca

Tel: (519) 849-6730

Toll free: 877-550-7412

Fax: (519) 849-6731

Looking for a cost effective way to distribute your 2018 inventory catalogues?

INSERT THEM

advertising@thegrower.org

866-898-8488 X 221



@growernews



HASKAP

EDIBLE BLUE HONEYSUCKLE

Visit our website for information about our varieties, pricing, research, and production guide.

Plants for sale at

www.phytocultures.com

admin@phytocultures.com | 902.629.1229



GRINDSTONE CREEK NURSERY

Shade • Nut • Flowering • Native • Fruit

35+ years experience growing trees for wholesale markets

Apples, Pears, Fruiting Quince, Plums, Apricots,

Sweet & Sour Cherries, Peaches & Nectarines

Custom/Contract Growing Available

Nursery Location: 148 Concession 6 Rd. E., Millgrove, ON L8B 1M4

Phone: 905.689.5466 | Fax: 905.689.8584 | Email: info@gentrees.com

www.gentrees.com

GLADIOLUS BULBS

Wide variety selection for retail sales and commercial cut flower production.

Order online at www.lmbolle.com

813083 Base Line Norwich, ON

T: 519-468-2090 F: 468-2099

E: lmbolle@execulink.com

L.M. BOLLE & SONS



CARTHER PLANTS

"MAXIMIZING YOUR PROFIT POTENTIAL"

TOP QUALITY STRAWBERRY PLUG TRANSPLANTS

BANK ON THE BENEFITS OF USING ACTIVELY GROWING PLUG TRANSPLANTS FROM VIRUS TESTED, HYDROPONICALLY GROWN NURSERY STOCK

GROWING PLUG TRANSPLANTS FOR OVER 15 YEARS

VEGETABLE & HERB PLUGS

TOMATOES, PEPPERS, BRASSICAS(COLE CROPS) CUCURBITS (VINE CROPS), ONIONS, LEEK ANNUAL & PERENNIAL HERB SEEDLINGS

CUSTOM SEEDING

CERTIFIED ORGANIC OR CONVENTIONAL



CONTACT US TODAY!
info@cartherplants.com

30627 JANE RD.
THAMESVILLE, ON
CANADA
PHONE 519.695.5445
FAX 519.695.5452
WWW.CARTHERPLANTS.COM



STOKES

BLUEBERRY FARM & NURSERY, INC

STOKES

BLUEBERRIES FRESHPRO, INC

54239 14TH AVE / GRAND JUNCTION, MI

269.427.8675 269.427.7226

Varieties

BLUE CROP / BLUE JAY / BLUE RAY
JERSEY / DUKE / ELLIOT / NELSON / NORTHLAND
PATRIOT / RUBEL / SPARTAN & MORE

ALL PLANTS ARE STATE INSPECTED

Exclusively BLUEBERRY PLANTS SINCE 1978

Order direct from our wholesale nursery
Call or Write for a current price list and brochure

www.stokesblueberries.com / stokes@stokesblueberries.com

BARE ROOT 1 / 2 / 3 YEAR

CONTAINER GROWN 2 / 3 YEAR

MARKETPLACE

advertising@thegrower.org 866-898-8488 x 221



looking ahead to February
focus: Ontario Fruit & Vegetable Convention

This must-attend event attracts more than 2,500 growers and industry personnel from across Canada. A trade show is coupled with a deep roster of local and global experts in commodity specific seminars.

Advertise your company's products, services — and booth number — before this year's Feb. 21-22 event.

THE GROWER calling
to sponsor a podcast email
advertising@thegrower.org



coming up in January
focus: grapes, berries & vineyards

Timed for decision-making soon after fall harvest, this issue focuses on the inputs and expertise needed for quantity and quality. Cross-country experts share their findings from the most recent growing season and how to control major pests and diseases.

ORCHARD SUPPLIES

Farm | Orchard | Vineyard | Berry Trellising

PWP

PRINCETON WOOD PRESERVERS LTD.

Kiln Dried Pressure Treated Round Wood Posts and Rails.

www.pwppost.com

Preferred Supplier for BC Ministries & Parks Canada.
Guaranteed Life Expectancy of 25 years if not damaged or altered before or after installation.

Contact Greg Ardiel **705-443-7613**

GROWING SUPPLIES

Strawberry Containers Plug Trays Lettuce Cultivation

Ellepot by A.M.A.™ Substrate

Solutions
for Your Success!

a.m.a.

800-338-1136
amaplas.com

REAL ESTATE

ROYAL LEPAGE
RCR Realty, Brokerage
Independently Owned & Operated

Gerry Loeters for Royal LePage, RCR Realty.
PH. 519-765-4217
Cell. 519-773-6460
loeters@amtelecom.net

BLUEBERRY FARM
NOW CERTIFIED ORGANIC

Blueberry farm for sale in West Elgin near West-Lorne on major Highway. Appr. 13 acres in full production. Lots of room for expansion. NOW certified organic. Full list of equipment and financials available for serious inquiries only.

ORCHARD High producing orchard south of Simcoe. Total 100 acres with 60 acres in orchard 2 homes, bunkhouse, machine shed and full line of equipment. Mix of varieties and age of trees available. More information available.

REFRIGERATION

penn
Refrigeration Ltd.
Since 1961

100% SATISFACTION GUARANTEED

**Refrigeration (all types)
Heating
Air conditioning
Controlled atmosphere**

18 Seapark Drive St. Catharines ON L2M 6S6
Tel: 905-685-4255 Fax: 905-685-0333
info@pennrefrigeration.com
www.pennrefrigeration.com

KOOLJET
RELIABLE REFRIGERATION SYSTEMS

1.866.748.7786

Authority in Refrigeration for Food Processing and Agricultural Industry

- CUSTOM DESIGNS
- THRU-THE-WALL
- ROOF-MOUNTED
- PORTABLE
- HYDROCOOLERS
- BLAST FREEZERS
- CHILLERS
- GREENHOUSE COOLERS

Made in North America

OUR COMFORT ZONE
-76° to +55°

PLUG AND PLAY

• ONE PIECE DESIGN • FREE COOLING

REAL ESTATE

Larry "BILKO" Bilkszto
Your Local Sales Rep. Since 1989

Specializing in Farms, Agri Lands, Greenhouses, Country Estates and Rural Properties throughout the Niagara Region!

BUYING OR SELLING?
CALL
"BILKO"

Complimentary Evaluation of Your Property

RE/MAX
Garden City Realty Inc.

905-563-3330 • 905-641-1110 • 1 (866) 575-9400

 **@growernews**

MARKETPLACE

advertising@thegrower.org

866-898-8488 x 221

IRRIGATION

Pipe & Fittings for Water Systems

- PVC, ABS, Poly, Copper
- Stainless, Brass, Steel
- Product Lines**
- Drip & Micro Irrigation
- Septic & Sewer
- Drainage & Culverts
- Berkeley Water Pumps

Winona Concrete & Pipe Products Ltd.

489 Main St. W., Grimsby, ON. L3M 1T4

info@WinonaConcrete.com

Phone (905) 945-8515

Fax: (905) 945-1149

or call toll-free

1-800-361-8515

**TARGET YOUR MARKET
BY COMMODITY OR
GEOGRAPHY WITH AN**

INSERT IN THE GROWER

advertising@thegrower.org

**THE GROWER
IS OFFERING
EBLASTS.
RESERVE YOUR
FRIDAY NOW.**



**519-763-8727
x 221**

EQUIPMENT



FROST EQUIPMENT & PLATFORMS



The FrostGuard:
The Most Flexible



The Frostbuster:
The Most Economical



Everything you need for an
affordable price

Frost protection for your fruit crop will protect against night frost regardless of wind speed or inversion layer. Positive test results to as low as -4.5 Celsius. Ideal frost protection for 2.5 acres to 20 acres. Affordable & portable. AgroFrost offers you a complete range of frost protection solutions. Orchards, vineyards, whatever crop you have, you need to protect against night frost. Our Frostbuster and FrostGuard not only protect your crop against night frost, they also improve the fruit set and pollination. This is an important advantage that we can offer you through our proprietary products.

When using a platform worker productivity increase approximately 40% and significant economic savings per acre!

Contact us for more details:

AGROFROST CANADA

PO BOX 146 Tillsonburg ON N4G 4H3

Corné: 519-765-0650 / Cor: 519-777-0446

www.agrofrostanda.com

Come see us at
Great Lakes Expo,
Dec 5-7, 2017 in Grand
Rapids (Michigan) and
OFVC Feb. 21-22, 2018
in Niagara Falls (ON)

TURBO-MIST SPRAYERS - 2018 MODELS ARE HERE



NOW IN STOCK EXTRA TALL 112" LOW DRIFT SPRAY TOWERS

Turbo-Mist 500, diaphragm pump, tall tower, short turn hitch	\$19,400
Turbo-Mist 500 diaphragm, electric controls, short turn hitch	\$17,900
Turbo-Mist 500 diaphragm, hydraulic controls, tall tower	\$18,500
Turbo-Mist 500 centrifugal pump, hydraulic	\$12,900
Turbo-Mist 600 NEW centrifugal pump, hydraulic	\$15,750
Turbo-Mist 600 centrifugal, hydraulic	\$10,500
Turbo-Mist 600 centrifugal, hydraulic, tall tower	\$11,900
Perfect KG-220 (used 3 yrs) HD flail mower, new hammers	\$7,250
Perfect KG-220 all new hammers	\$4,250

*** WANTED: GOOD CLEAN SPRAYER TRADES ***

* PERFECT ROTARY MOWERS & HEAVY DUTY FLAIL MOWERS
TRADES, CONSIGNMENTS, LEASING, DELIVERY ANYWHERE

DON ARTHUR ORCHARD EQUIPMENT

(519) 599-3058 donarthur3@gmail.com Clarksburg, ON



WARWICK

ORCHARDS & NURSERY LTD.

7056 Egremont Rd. RR8 Watford, ON N0M 2S0

Tel: (519) 849-6730 Toll free: 877-550-7412

Fax: (519) 849-6731

Email: warwickorchards@brktel.on.ca

- ✓ Orchard Equipment & Supplies
- ✓ Munckhof Orchard Sprayers
- ✓ Votex Shredders
- ✓ Votex Mowers
- ✓ Tree Stakes & Tie Material



@growernews

Kerian SPEED SIZER



GENTLE: Separates without damaging peaches, apples, mushrooms and fresh tomatoes

ACCURATE: Precisely grades grape tomatoes, cherries, nuts, and small berries, maintaining that accuracy for larger products including cantaloupes and pineapple

FAST: Thirteen standard models custom-designed to meet your needs sort from 1000 lb/hr to 100,000 lb/hr

SIMPLE: Effective but simple design provides a rugged, low cost, low maintenance machine at a high value to our customers. It can even be used in the field!

VERSATILE: Specialized rollers allow for the accurate sizing of round products (potatoes, onions, and citrus), long products (carrots, russets, and cucumbers), and irregular products (bell peppers, jalapenos, and garlic)



KERIAN MACHINES INC.

1709 Hwy 81 S, PO Box 311, Grafton ND 58237

PHONE: 701-352-0480 FAX: 701-352-3776

WEBSITE: www.kerian.com EMAIL: sales@kerian.com

CONTAINERS & PACKAGING

PLASTIC BASKETS

- MADE IN CANADA
- Weather proof
- 2L & 4L plastic baskets
- Air ventilation
- Suitable for several products
- Reliable delivery
- Strong durable plastic
- Sturdy handles



www.shouldicefarm.com

613-838-4203 • shouldice1@bell.net



P: 519-373-9679 F: 519-599-2609

Email: 27west@bmts.com

We manufacture standard fir plywood bins and half bins.
Right now we have some inventory of both sizes.

We also sell a complete line of parts.

All bins are stenciled according to purchasers wishes.

Please don't hesitate to call us!!!



MINOR USE

CRAIG'S COMMENTS

Using history to fix the problem



CRAIG HUNTER
OFVGA

During WWII, there were many tough jobs. The losses in bomber command were 55,000 plus tens of thousands more injured. Many folks agreed however, that the toughest job went to the ones responsible for sending out the crews night after night knowing full well that many would never return. After the war, many of these brave men were vilified, castigated, and called many things including heartless. The head of bomber command was even nick-named ‘Butcher’ Harris.

What very few knew was that he felt that every one of his crew members was like a member of his own family. He felt the grief of their loss like every family did when they lost a son, husband, brother or father.

The losses and frustrations that we in horticulture feel today are in no way to the same extent as those faced back in the war. However, they can be devastating to a family, to a region, to an industry and ultimately to the country. These are no different than those faced by the Newfoundland cod fishing industry. They are very similar to those who worked in thermal electricity plants when they were closed. It is much like when BSE devastated the western Canadian beef industry with spillover to beef producers everywhere else.

Simply put, we are currently faced with the loss of the underpinning of our many plant

disease control programs. In spite of the many letters, the lengthy explanations, the interventions with politicians, and the passionate pleas around many tables, there has been little apparent change in the severe restrictions or full loss of use of eight fungicides and three insecticides.

If growers knew and believed that these actually posed an unsolvable danger, they would be the first to act. However, we know that neither the U.S. EPA nor the EU Pesticides ‘directorates’ have announced any such actions! Furthermore, we know from our own practice that the basis of much of the exposure calculations was not applicable here. Even if these ‘calculations’ had been valid, there has not been enough done to determine mitigation steps that could be taken to minimize the calculated exposure. It is simply not acceptable to be told: ‘we don’t know what type of gloves to recommend workers should wear,’ or ‘we cannot be sure workers will be informed as they do not see the label’ or ‘gloves might even increase the exposure!’

Whose fault is that? It is the fault of everyone -- growers, registrants, regulators and ‘The System’ that has not worked in anyone’s favour.

How do we ‘fix’ it in time? Everyone has to step up. Everyone needs to take a deep breath, admit that until they are part of the solution, they remain part of the problem. If studies are needed, everyone should have been told, and asked to do them. If data is seen to be inapplicable here, that comment should be taken to heart rather than tossed aside. Everyone and someone needs to stand up and take responsibility to get it right.

In WWII, the successful crews were the ones who practised on days off instead of lounging about. They developed well managed and understood bombing runs with virtually no straight lines right up to the final 10 seconds so as

to avoid both flak (anti-aircraft fire) and night fighters. They learned techniques to deal with emergencies like being coned in searchlights, and for when engines failed. Just like the athletes of today, those who practised the most seemed to have the best results.

We need to remember those lessons. The approach to these reviews must include being engaged from day one or even before that. It must include sharing our use knowledge, our on-farm practices, and especially the potential impacts of any change from the status quo. It must include being involved at every stage to provide help, guidance and data wherever and whenever possible to ‘Get it right the first time.’ When I suggest ‘we,’ I actually mean all the players. Everyone must step up to get the best possible outcome.

The powers that be made sure that the experienced crews stayed put in a squadron to help teach their skills to the new ‘sprog’ crews. The highest losses came on a new crew’s first or second trip. That is not to say that a crew approaching their 30th trip (end of a tour) could not be shot down. ‘It’ happened. We too may not win every debate in re-evaluation. It is not even about ‘winning’ --it is about survival of the active ingredient to keep us competitive.

Growers need an arsenal of crop protection products that can do the job with the minimum of applications, minimum of product, and in an economical way. We want to maintain the efficacy of these products as long as possible too. Most of those that are threatened with loss are the multi-site mode of action products that, in addition to their efficacy against many fungi, are also the basis of managing resistance to the newer single-site mode of action products that are quite resistance-prone. Loss of the multi-site products is a double whammy. That is why our potential loss of use is so comparable to other tragic losses



in Canadian Agriculture. We could lose the ability to produce many fruits and vegetables in an economical way without these tools. In fact, we are not simply talking about the loss of some fungicides; we are facing the loss of our ability to grow several crops in Canada at all!

Would the consumer even know or care? The produce counters would still be full. There would be many fewer ‘Local Produce’ signs however as this produce would be coming from other countries that still get to use all these fungicides and insecticides. Processed goods would also be sourced from away, and consumers would mostly not know the place of origin. It would be too late by then to think about Buy Local, Carbon Footprint, and Product of Canada. It would be too late to convince growers to go back to an old commodity once they give it up. It would be too costly and non-competitive to try to grow these crops with the very expensive and likely short-lived alternatives currently available.

In spite of all of this, there is in fact an even bigger issue that we face. If registrants see that Canada can and does cancel uses for ‘reasons’ such as these, then why would they risk further entry of new products here? If their confidence in ‘the system’ is shattered, they will vote to stay away. Then we not only have no present, we have no future either. This is not over-reach. I have heard these very sentiments being expressed!

During the war, the authorities were very concerned about the loss of morale, and the effects of crew members who ‘broke’ and would not fly. These were handled swiftly, and many will say callously. However, there were 255,000 others to be considered, so hard justice was handed out. We are the 255,000 in this scenario. We need the ones who came up with and somehow justified the proposed cancellations to take ownership of their decisions. We need them to look back on what they did, how they did it, what data they used, whom they consulted (if anyone) and agree to start over again. We absolutely expect they will do whatever it takes to reach an acceptable outcome. The current proposals are not to be considered an option!

Growers, registrants and regulators must learn to do this re-evaluation job better. History tells us that if we do things better, we will achieve better outcomes. If any of us are not part of a better solution for these and any future re-evaluations, then we must consider ourselves culpable, and part of the problem!

There will be no need to castigate, or assign nasty nicknames later on if we are all part of one team trying to do a good job. I for one do not want a legacy of the loss of these key products to dog me later on. Or to wear a nickname I cannot laugh about!

In memory of those brave airmen who were lost, so we could be here today.



CONVENIENT
EFFECTIVE
DURABLE

SLUGGO® is an effective, specially formulated slug & snail bait that contains iron phosphate, a compound commonly found in soil. SLUGGO® causes slugs & snails to immediately cease feeding on plant tissue after ingesting even small amounts of this bait. Any uneaten SLUGGO® will degrade and become part of the soil. It will not harm pets and wildlife.



SLUGGO®
PROFESSIONAL

ENGAGE AGRO

www.engageagro.com
SLUGGO is a registered trademark of W. Neudorff GmbH KG.

INTERNATIONAL

MAINE

Searching for solutions for blackleg disease



International researchers gathered in Bangor, Maine in early November for the 2017 Dickeya and Pectobacterium Summit. The blackleg disease threatens the potato industry, not just in the United States but everywhere.

"This is not an emerging problem," said Steven Johnson, cooperative extension professor, University of Maine. "This is an existing one we are trying to get ahead of."

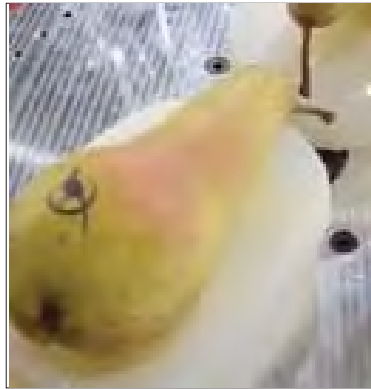
At the heart of the problem? The pathogen will rot the seed, so that the plant does not take root and produces nothing.

Growers are warned to be vigilant in sourcing seed for next year's crop.

Source: FreshPlaza.com

ITALY

Winter pears stamped with edible inks



At the recent Futurpera world pear expo in Ferrara Italy, native company Lesepidado intrigued buyers with its equipment to impress a logo on pears with an edible ink. The concept has been used with cakes and confectionaries, but is now being extended to the produce industry.

The idea is attractive to organic growers who want to replace conventional stickers. The machines can be integrated into a packing line as a series to keep up with packagers.

Source: FreshPlaza.com

MICHIGAN

Seasonal workers hard to source



Michigan's apple growers are increasingly worried about sourcing seasonal workers to harvest a crop worth \$293 million in 2016. The state holds fifth place in the U.S. for registered migrant and seasonal farm workers.

The H-2A visa program has been a lifeline, responsible for 6,500 workers in the state in 2017. Almost a decade ago, there were only 440 workers under the program. While farmers complain about the bureaucratic process of paperwork, having to predict their expected crop and forecasting the number of workers needed, they are grateful for the quality of workers, many from Mexico.

Source: FreshPlaza.com

NETHERLANDS

Asparagus robot launched



Dutch start-up company Cerescon presented the first asparagus robot at 'Spargelmesse', the largest asparagus fair in the world, on November 22. According to the expo's website, the company has developed a selective asparagus harvesting machine that can harvest crops in parallel over three rows.

The patented underground detection method is based on proximity sensor technology, which detects the asparagus under the soil. The coordinates of the stem are forwarded to a picking robot, which picks the asparagus without requiring the machine to stop. The hole which is formed by the picking action in the bed is then re-filled to ensure uniformity of the bed and to prevent following asparagus stems from growing bent or crooked.

The three-row version of the machine can be best used during the season for up to 50 hectares of crops, promising to replace 60 to 75 seasonal workers. According to Cerescon, underground detection on the film insert can be dispensed with. The amortisation period is two to four years.

Source: HortiDaily.com

Siegers...more than seed

Our extensive selection and consultant's knowledge of varieties benefits you, our valued customer.



ANTHEM II

73 Days. Great eating quality, tender and sweet. Excellent yield and tip fill. Has below ground protection for Corn Rootworm. Proven to have dual modes of action for insect protection against European Corn Borer, Corn Earworm, Fall Armyworm and weed control benefits of Roundup® agricultural herbicides.



SV9014SB

78 Days. Resistance/Tolerance: Et^(IR), Ps^{RpG(HR)}, Pst^(IR). Synergistic mainseason variety with a classy ear, high eating quality, and below ground protection for Corn Rootworm. Proven to have dual modes of action for insect protection against European Corn Borer, Corn Earworm, Fall Armyworm and weed control benefits of Roundup® agricultural herbicides.






Canada Facility
52999 John Wise Line
Aylmer, ON N5H 2R5 Canada
Toll Free: (844) 473-3250
Toll Free Fax: (888) 765-8715
Elaine Cell: (519) 619-1240
Email: Elaine_cartwright@siegers.com



1-800-962-4999 • www.siegers.com







UNEARTH THE SECRET TO POWERFUL SOIL

**THE POWER OF OUR SCIENCE LIES
IN OUR ABILITY TO USE ADVANCED
MICROBIOLOGICAL TECHNIQUES TO
ENRICH SOIL FROM THE BOTTOM UP.**

We use a unique fermentation process to combine bacteria, yeasts, and molds into high-performance products that turn your soil into a natural biological factory that speeds nutrients to your crops.

Whether you're growing tomatoes or blueberries, Inocucor will improve your crop yields, shorten growing periods, and strengthen the long-term productivity of your soil.



To speak to an Inocucor soil health expert about creating a customized plan for your farm or greenhouse operation, contact

Sean Chiki (Ontario)	Jan Kral (rest of Canada)
schiki@inocucor.com	jkral@inocucor.com
(905) 407-0161	(438) 392-1974